

INDEX OF AUTHORS' NAMES.

ABSTRACTS. 1893. Parts I & II.

And also to Transactions, 1893 (marked TRANS.); and to such papers as appeared in the Proceedings during the Session 1892—1893 (Nos. 115 to 127; Nov., 1892, to July, 1893), but not in Transactions (marked PROC.).

A.

- Abegg, R., diffusion in aqueous salt solutions, ii, 265.
 Abel, J., condensation of formaldehyde with naphthols, i, 172.
 Abel, J. J., and A. Muirhead, carbamic acid in the urine after ingestion of calcium hydroxide, ii, 333.
 Abend, L. See Geigel.
 Abenius, P. W., paradiazine derivatives, i, 374.
 Abenius, P. W., and H. G. Söderbaum, aromatic tetraketones, i, 169.
 Adolphi, W., chebulic acid, i, 212.
 Adrian, C., influence of dividing the daily nutriment on the metabolism of the dog, ii, 383.
 Aglot, E., estimation of precipitates by an optical method, ii, 294.
 Agrestini, A., hepatic mineral water and mud of the Valle del Gallo, ii, 175.
 Ahrens, F. B., sparteine, i, 232.
 Aignan, A., influence of temperature on the rotatory power of liquids, ii, 354.
 Aladern. See D'Aladern.
 Alberti and Hempel, estimation of inorganic constituents in sugars, ii, 51.
 ——— estimation of nitrogen in nitrates, ii, 42.
 ——— estimation of nitrogen in sodium nitrate, ii, 87.
 Alén, J. A., preservation of milk for analysis, ii, 308.
 Alexander, volumetric estimation of lead, ii, 599.
 Alexandroff, P., and N. Saytzeff, isocuric acid, i, 549.
 Alkemade. See Van Rijn Van Alkemade.
 Allaire, H. See Rousseau.
 Allen, A. H., volumetric estimation of alkaloids, ii, 252.
 Allen, L. S., iodoso- and iodoxy-derivatives of metanitropariodobenzoic acid, i, 578.
 Altschul, M., critical constants of some organic compounds, ii, 446.
 Alvisi, U., action of phenylhydrazine on ethylene chlorhydrin, i, 639.
 ——— relation between the periodic classifications of L. Meyer and Mendeléeff, ii, 513.
 ——— specific gravities of the elements in the periodic system, ii, 513
 ——— the camphor group, i, 660.
 Amagat, E. H., laws of the expansion of liquids compared with those relating to gases, and the form of the isothermals for liquids and gases, ii, 152.
 Amerman, G. L. See Chittenden.
 Ampola, G. See Oddo.
 Anthor, C., and J. Zink, analysis of lard, ii, 101.
 Anderlini, F., action of diamines on cantharidin, i, 483.
 ——— derivatives of cantharidin, i, 483.
 Anderlini, F., and E. Borisi, condensation of ethylic formate and succinate, i, 192.
 André, G. See Berthelot.
 Andreocci, A., derivatives of urethane, i, 128.
 ——— new isomeride of santonic and santonic acid, i, 526.
 Andrews, T., electrochemical effects on magnetising iron, ii, 404.
 ——— passive state of iron and steel ii, 16.
 Angeli, A., action of iodic acid on malonic acid: triiodoacetic acid, i, 307.

- Angeli, A., action of nitric and nitrous acid on certain organic substances, i, 196.
- action of nitrous acid on isosafrole, i, 261.
- action of nitrous acid on ketoamines, i, 570.
- affinity coefficients of some pyrrolidine and indole acids, i, 42.
- compounds containing the group $C_2N_2O_2$, i, 355.
- novel conversion of camphor into camphoric acid, i, 277.
- oxidation of substances containing the group $C_2N_2O_2$, i, 310.
- Angeli, A., and P. Bartolotti, action of nitrous acid on isosafrole, i, 263.
- Angeli, A., and G. Boeris, influence of electrolytic dissociation on the decomposition of ammonium nitrite in aqueous solution, ii, 155.
- Anschütz, R., Heintz's glycolide, i, 306.
- preparation of pure chloroform from salicylide-chloroform, i, 121.
- salicylide, i, 165.
- Anschütz, R., and F. Biernaux, diglycollic acid and thiodiglycollic acid, i, 191.
- Anschütz, R., and W. O. Emery, perchlorethyl chloroformate and trichloromethyl trichloroacetate, i, 188.
- Anschütz, R., and W. Montfort, formation of phoronic acid from phorone, i, 304.
- Anschütz, R., and E. Parlato, ethylic oxomalonate, i, 193.
- Anthoine, crystalline dihydrochloride from eucalyptus oil, i, 223.
- Antoine, C., tensions of vapours, ii, 9.
- Antony, U., action of chlorine and carbonic oxide on iridium, ii, 214.
- composition of the precipitate obtained with hydrogen sulphide in solutions of potassium iridochloride, ii, 379.
- lithium iridochloride and iridium bisulphide, ii, 380.
- Antony, U., and P. Donnini, mangano sulphide, ii, 527.
- Antony, U., and L. Niccoli, separation of the metals precipitated by hydrogen sulphide in acid solutions, ii, 192.
- Antushevitch, J. A., analysis of bees'-wax by Hübl's method, ii, 198.
- Antushevitch, J. See Sabanéeff.
- Appleyard, J. R. See Frankland.
- Araki, T., action of phosphorus and arsenious oxide on the animal organism, ii, 136.
- Araki, T., β -hydroxybutyric acid in the organism, ii, 428.
- Archbutt, L., estimation of silica in clay, ii, 300.
- Armstrong, H. E., note on optical properties as indicative of structure, *Proc.*, 1893, 57.
- the conditions determinative of chemical change, *Proc.*, 1893, 145.
- the nature of depolarisers, *Proc.*, 1893, 148, 188.
- the origin of colour. Part V. Coloured hydrocarbons and fluorescence, *Proc.*, 1892, 189.
- the origin of colour. Part VI. Azobenzene, *Proc.*, 1892, 194.
- the origin of colour (including fluorescence). Part VII. The phthal-eins and fluoresceins, *Proc.*, 1893, 52.
- the origin of colour. Part VIII. The limitation of colour to truly quinonoid compounds. Change of colour as indicative of structure, as in the case of alizarin, *Proc.*, 1893, 55.
- the origin of colour. Part IX. Note on the appearance of colour in quinoline derivatives and of fluorescence in quinine, *Proc.*, 1893, 63.
- Armstrong, H. E., and F. S. Kipping, studies on the terpenes and allied compounds. The formation of ketones by the interaction of camphor and agents such as sulphuric acid and zinc chloride, *Trans.*, 75.
- Armstrong, H. E., and G. H. Robertson, the Planté lead | sulphuric acid | lead peroxide cell from a chemical standpoint, ii, 4.
- Armstrong, H. E., and W. P. Wynne, ortho-, para-, and peri-disulphonic derivatives of naphthalene, *Proc.*, 1893, 166.
- — — the Griess-Sandmeyer interactions and Gattermann's modifications thereof, *Proc.*, 1892, 199.
- Arnaud and Charrin, physiological action of cinchonamine sulphate, ii, 223.
- Arnold, C., and K. Wedemeyer, estimation of nitrogen in urine, ii, 343.
- — — Kjeldahl's method of estimating nitrogen, ii, 88.
- — — Spica's process for the estimation of phosphoric acid, ii, 299.
- Arrhenius, S., determination of the electrolytic dissociation of salts by means of solubility experiments, ii, 364.
- electrolysis of alkali salts, ii, 441.
- Arthus, M., and A. Huber, difference between formed and unformed ferments, ii, 31.

- Arthus, M., and A. Huber, solutions of fibrin, i, 743.
 Asbóth, A. v., action of hydrogen peroxide on starch, i, 384.
 — volumetric estimation of sulphuric acid in sulphates, ii, 240.
 Aschan, O., acids from Baku petroleum, i, 209.
 — bromocamphoric anhydride and camphoric acid, i, 598.
 — hexahydrobenzoic acid, i, 209.
 — hydrobenzoic acids, i, 33.
 Aschoff, K. See Jannasch.
 Askenasy, P., and V. Meyer, iodoso-compounds, i, 506.
 Aston, Miss E. See Ramsay.
 Auerbach, F., new collidine, i, 175.
 — pipercolinecarboxylic acid, i, 176.
 Aulard, A., raffinose and its decomposition products, i, 683.
 Autenrieth, W., potassium ferrocyanide: detection of hydrocyanic acid in presence of ferrocyanides, ii, 393.
 Auwers, K., pentanetetra-carboxylic acid: synthesis of pentamethylene derivatives, i, 253.
 Auwers, K., and H. Kauffmann, stereoisomeric derivatives of the symmetrical dimethylglutaric acids, i, 72.
 Auwers, K., and H. Schnell, camphoric acid, i, 525.
 Auwers, K., and M. Siegfeld, benzileoximes, i, 354.
 Ayres, E. F. See Yeates.

B.

- Babbitt, H. C., Emmerton's process for the estimation of phosphorus, ii, 553.
 — precipitation of ammonium phosphomolybdate in the presence of arsenic, ii, 236.
 Bach, A., assimilation of carbonic anhydride by chlorophyllous plants, ii, 483.
 — condensation of carbonic anhydride under the influence of sunlight, ii, 484.
 Bachofen, C. See Heumann.
 Bachofen, F. See Lunge.
 Bäckström, H., estimation of arsenic, ii, 299.
 Baeyer, A., hydro-derivatives of benzene, i, 255.
 — orientation in the terpene series, i, 359, 722.
 — synthesis of dihydrocymene, i, 258.
 Baeyer, A., and V. Villiger, hexahydroisophthalic acid, i, 713.
 Bagard, H., thermoelectric phenomena between two electrolytes, ii, 202.
 Baisch, K., the carbohydrates of normal urine, ii, 542.
 Baker, H. B., the influence of moisture on promoting chemical action, *Proc.*, 1893, 129.
 Baker, J. L. See Ling.
 Balbiano, L., oxidation of camphoric acid, i, 174.
 — phenylethyldimethylpyrazole, i, 672.
 — platopyrazole compounds, i, 674.
 Balbiano, L., and G. Marchetti, synthesis of homologues of 1-phenylpyrazole, i, 672.
 Balbiano, L., and O. Severini, some acids of the pyrazole series, i, 673.
 Baldracco, G. See Fietti.
 Balestra, E., action of potassium iodide or sodium thiosulphate on mercurammonium salts, ii, 278.
 — new mercurammonium salts, i, 304.
 Balke, P., xanthine derivatives, i, 535.
 Ballard, pre-existence of gluten in wheat, ii, 292.
 Baly, E. C. C., separation and striation of rarefied gases under the influence of the electric discharge, ii, 253.
 Bamberger, E., action of diazobenzene on β -ketonic acids, i, 156.
 — constitution of five-membered rings, i, 426.
 — imidazoles, i, 432.
 — valency of nitrogen in pyrroline, i, 727.
 Bamberger, E., and B. Berlé, addition of chloral to quinoline bases and benzimidazoles, i, 438.
 — — behaviour of the 2'-methyl group in benzimidazoles, i, 435.
 — — dibenzylidiamidoethylenic, i, 200.
 — — opening of the benzimidazole ring, i, 437.
 Bamberger, E., and F. Chattaway, chrysene, i, 593.
 — — picene, i, 594.
 Bamberger, E., and W. Dieckmann, tetrahydroisoquinolino, i, 525.
 Bamberger, E., and K. Landsteiner, behaviour of diazobenzene towards potassium permanganate, i, 327.
 Bamberger, E., and W. Lodter, dihydronaphthalene and its derivatives, i, 591.
 Bamberger, E., and J. Lorenzen, constitution and formation of benzimidazoles, i, 433.
 — — formazyl methyl ketone, i, 157.
 Bamberger, E., and F. Meimberg,

- direct conversion of aniline into nitrobenzene, i, 323.
- Bamberger, E., and L. Seeberger, constitution of dicyanodiamide, i, 494.
- Bamberger, E., and H. Sternitzki, dihydromethylketole, i, 520.
- Bamberger, E., and L. Storch, behaviour of diazobenzene towards potassium ferricyanide, i, 326.
- Bamberger, E., and E. Wheelwright, action of diazobenzene on ethylic acetoacetate, i, 84.
- Bamberger, E., and E. A. Zumbro, dihydromethylketole, i, 468.
- Bancroft, W. D., electromotive force of oxidation cells, ii, 58.
- Barad, D. See Bischler.
- Barbier, C., licarhodol from licareol, i, 544.
- Barbier, P., constitution of licareol, i, 496.
- constitution of rhodinol, i, 661.
- derivatives of licareol, i, 495.
- dextrogyrate licareol, i, 661.
- geraniol, i, 664.
- licarene from licareol, i, 493.
- Barillot, E., impurities in crude methyl alcohol, ii, 196.
- Baroni, G., determination of molecular weights by Beckmann's method, ii, 511.
- Barthe, L., analysis of quinine sulphate, and estimation of quinine in presence of other cinchona alkaloids, ii, 199.
- synthesis with the aid of ethylic cyanacetate and ethylic cyanosuccinate, i, 305.
- volumetric estimation of alkaloids, ii, 146.
- Barthe and Falières, complete elimination of barium from strontium salts, ii, 209.
- Barthel, G., light petroleum burner, ii, 368.
- Bartolli and Stracciati, specific heat of water, ii, 443.
- Bartolotti, P. See Angeli.
- Baruch, J., constitution of behenolic acid, i, 551.
- Baruch, J. See also Holt.
- Barus, C., and E. A. Schneider, behaviour of solid colloidal silver towards the electrical current, ii, 314.
- Baskerville, C. See Corse.
- Bau, A., estimation of isomaltose in worts, ii, 601.
- Baubigny, H., and E. Péchard, dissociation of chrome alum, ii, 73.
- Bauch, E. See Töhl.
- Bauer, R. W., sugar from pear pectose, i, 248.
- Baumann, A., estimation of antimonious oxide, ii, 90.
- estimation of arsenious acid, ii, 90.
- estimation of hydrogen and barium peroxides, ii, 86.
- gas-volumetric alkalimetry, ii, 91.
- gas-volumetric estimation of iodine and acids, ii, 87.
- gas-volumetric estimation of potassium ferricyanide, ii, 98.
- Baumann, E., excretion of ethereal hydrogen sulphates, ii, 290.
- oxidation of the two trithioacetaldehydes, i, 684.
- Baumann, E., and G. Walter, hydrolysis of sulphones, sulphone-sulphinic acids, and sulphinolactones, i, 458.
- Baumeister, W., preparation of hydroxyxanthenes from the salols of polyhydric phenols, i, 218.
- Bayard, C. See Causse.
- Bayer, A., direct estimation of potassium and sodium by means of tartaric acid, ii, 598.
- Bayer, R. See Claus.
- Bayley, W. S., augite and plagioclase in a Minnesota gabbro, ii, 78.
- Beadle, C. See Cross.
- Béchamp, A., absence of spontaneous inversion of cane sugar in aqueous solution at the ordinary temperature, i, 547.
- gum arabic, i, 294.
- Beck, C. orthonitrobenzyl derivatives, i, 415.
- Beck, C. R. See Shenstone.
- Beckencamp, J. See Claus.
- Becker, A. See Sachsse.
- Beckmann, E., benzylbenzaldoxime, i, 706.
- Beckmann, E., and E. Fellrath, action of phenylcarbimide on benzylbenzaldoxime, i, 203.
- Beckmann, E., and A. Köster, basic bye-product obtained by benzylating acetoxime, i, 464.
- — hydroximido-derivatives: beziloximes, i, 474.
- Béhal, A., and C. Choay, creosotes and guaiacol, i, 320.
- — derivatives of chloral, i, 301.
- Behrend, R., electrometric analysis, ii, 387.
- Behrend, R., and J. Schmitz, action of nitric acid on acetone, i, 303.
- Beijerinck, M. W., butylic alcoholic fermentation and the butylic ferment, ii, 586.
- Beill, A., influence of temperature on the formation of ozone, ii, 317.

- Bel. See Le Bel.
 Bell. See De Bell.
 Bemmelen. See Van Bemmelen.
 Benedikt, H., β -hydrindone and its derivatives, i, 587.
 Benedikt, R., analysis of beeswax, ii, 397.
 Benedikt, R., and H. Strache, analyses of ethereal oils, ii, 560.
 Benno-Laquer, detection of albumin and sugar in urine, ii, 610.
 Berg, A., chloramines, i, 497.
 ——— chlorine derivatives of propylamines, benzylamines, aniline, and paratoluidine, i, 296.
 Berger, R. See Möhlau.
 Berkeley, W. N., paranthrite from Clay Co., N. Carolina, ii, 287.
 Berkenheim, A., crystalline substance from *Santalum praesii*, i, 666.
 Berlé, B. See Bamberger.
 Bernheim, A., exudations and transudations, ii, 334.
 Bernthsen, A., metamidodialkylorthotoluidines, i, 409.
 ——— metamidodialkylorthotoluidines and their conversion into methylene-blue dyes, i, 75, 77.
 Bertels, A., influence of chloroform on peptic digestion, ii, 217.
 Berthelot, absorption of atmospheric nitrogen by microbes, ii, 83.
 ——— absorption of free nitrogen by plants, ii, 138.
 ——— heat of combustion of camphors, ii, 108.
 ——— heat of combustion of glycollic acid, ii, 6.
 ——— metallic aërolite, ii, 326.
 ——— the nitrogen-fixing micro-organisms, ii, 429.
 Berthelot and André, the organic constituents of soils, ii, 341.
 Berthelot and Matignon, glyoxylic or dihydroxyacetic acid, ii, 6.
 ——— heat of combustion of chlorine compounds, ii, 5.
 ——— heats of combustion of gaseous hydrocarbons, ii, 444.
 Berthelot, D., electrical conductivities of phosphoric acid and of alkali phosphates, ii, 357.
 Bertin-Sans, H., and J. Moitiesier, action of carbonic oxide on reduced hæmatin and hæmochromogen, i, 448.
 ——— oxyhæmatin, reduced hæmatin, and hæmochromogen, i, 447.
 Bertram, J., and H. Walbaum, pine needle oils, i, 659.
 Bertrand, G., essential oil of niaouli, i, 523, 727.
 Bertrand, G., xylose, i, 248.
 ——— zincoxides of alkaline earths, ii, 118.
 Bertrand, G., and G. Poirault, colouring matter of pollen, ii, 139.
 Besson, A., carbon chloriodide, i, 185.
 ——— decomposition of chloroform in the presence of iodine, i, 242.
 Bevad, I., ethereal salts of nitrous acid, i, 382.
 ——— synthesis of mononitroparaffins, i, 242.
 Bevan, E. J. See Cross.
 Bial, M., diastatic action of the serum of blood and lymph, ii, 333.
 ——— diastatic ferment in blood, ii, 581.
 Biernacki, E., influence of antiseptics on fermentation, ii, 32.
 Biernaux, F. See Anschütz.
 Biétrix, A., bromogallic acid and its derivatives, i, 583.
 ——— derivatives of gallic acid, i, 343.
 ——— dibromogallic acid and its salts, i, 269, 343.
 ——— triacetyldibromogallic acid and tribenzoyldibromogallic acid, i, 643.
 Bigelow, W. D. See MacElroy.
 Biginelli, P., aldureides of ethylic acetoacetate and ethylic oxalacetate, i, 645.
 Bigot, A., some derivatives of glycerol, i, 3.
 Billeter, O., penta-substituted dithiobiurets, i, 575.
 Biltz, H., action of chloral on benzene in the presence of aluminium chloride, i, 718.
 ——— explosives, ii, 409.
 ——— the aluminium chloride synthesis, i, 718.
 ——— vapour density of halogen halides at low temperatures, ii, 65.
 Binz, A. See Wallach.
 Birsman, E., alkaloids of *Cordy dalis nobilis*, i, 446.
 Bischler, A., new synthesis of pyrazole derivatives, i, 44.
 Bischler, A., and D. Barad, phenometadiazine, i, 47.
 Bischler, A., and E. Burkart, phenometadiazine derivatives, i, 530.
 Bischler, A., and P. Fireman, 2':3'-diphenylindoles, i, 519.
 Bischler, A., and F. J. Howell, phenometadiazine derivatives, i, 531.
 Bischler, A., and B. Napieralski, new synthesis of isoquinoline, i, 608.
 Bischler, A., and W. Oser, new synthesis of pyrazole derivatives, i, 610.
 ——— phenometadiazine derivatives, i, 609.
 Bischoff, C. A., piperazine group, i, 54.

- Bischoff, C. A., and A. Hausdörfer, acidoxyl-derivatives of diphenylethylenediamine and ditolyethylenediamine, i, 78.
- — — derivatives of α - and β -naphthylamines containing asymmetrical nitrogen and carbon atoms, i, 98.
- Bischoff, C. A., and C. Trapezonzanz, monoketopiperazines, i, 53.
- Bischoff, C. A., and P. Walden, anilides and toluidides which exist in two modifications, i, 511.
- — — application of the dynamical hypothesis to keto-acid derivatives, i, 499.
- — — glycolide and its homologues, i, 250.
- Bistrzycki, A. See Liebermann.
- Bitté, B. v., composition of the ripe husks of capsicum, ii, 546.
- Bizzarri, D., carbazacridines: oxidation of phenylcarbazacridine, i, 417.
- Blackshear, C. C., sulphonephthal-eins, i, 94.
- Bladin, J. A., oxidation of azimido-toluene, i, 375.
- Blank, A., action of diazobenzenechloride on α -hydroxyuvitic acid, i, 341.
- Blank, P., derivatives of trimethylene chlorobromide, i, 8.
- Blattner, N. G., estimation of free alkali in commercial hypochlorites, ii, 91.
- Blau, F., constitution of nicotine, i, 375, 489.
- Bleibtreu, L. See Wendelstadt.
- Bleibtreu, M., and L. Bleibtreu, method of estimating the volume of the corpuscles of the blood, ii, 331.
- Bloch. See Schlagdenhauffen.
- Blomstrand, C. W., complex acids containing heptavalent iodine, ii, 122.
- Bloxam, W. P., the sulphides and polysulphides of ammonium, *Proc.*, 1893, 178.
- Blümcke, A., labile conditions of equilibrium in salt solutions, ii, 447.
- Bodenstein, M., and V. Meyer, decomposition of gaseous hydrogen iodide by heat, ii, 369.
- Bodewig, A. See Paal.
- Bodländer, G., cobaltiferous chalybite from Neukirchen, ii, 129.
- — — composition of melilite, ii, 174.
- Bödtker, E., estimation of urea, ii, 146.
- Boeris. See Angeli.
- Böttcher, O., estimation of nitric nitrogen, ii, 145.
- — — estimation of nitrogen by Kjeldahl's method, ii, 144.
- Boiret, H., and G. Paturel, employment of ferrous sulphate in agriculture, ii, 142.
- Boisbaudran. See De Boisbaudran.
- Bokorny, T., assimilation of formaldehyde by green plant cells, ii, 32.
- Bombien. See Hiller-Bombien.
- Bondzýński, S., detection of mercury in urine, ii, 438.
- — — Sjöqvist's method of estimating the free hydrochloric acid in gastric juice, ii, 433.
- Bone, W. A., studies on the indoxazen reaction, *TRANS.*, 1346.
- Bone, W. A. See also Meyer.
- Borg, F. See Villiers.
- Borisi, E. See Anderlini.
- Bornemann, G., aluminium apparatus in the laboratory, ii, 162.
- Bornträger, A., use of potassium hydrogen tartrate in volumetric analysis, ii, 144.
- Bornträger, H., rapid reduction of potassium platinochloride, ii, 284.
- — — separation of iron from aluminium, ii, 304.
- Bossel, F. See Graebe.
- Bossi, A. See Nietzki.
- Bothamley, C. H., distribution of acids and bases in a solution containing calcium, magnesium, carbonic acid, and sulphuric acid, and on the composition of mineral waters, *TRANS.*, 696.
- — — the mineral waters of Askern, Yorkshire, *TRANS.*, 685.
- Bouchardat, G., action of acetic anhydride on linalol, i, 544.
- Bouchardat, G., and J. Lafont, action of sulphuric acid on citrene, i, 223.
- Bouchardat, G., and Olivero, essence of eucalyptus, i, 726.
- — — action of acetic and formic acids on terebenthene, i, 358.
- Bouillot, J., alkaloids in cod liver oil, ii, 290.
- Boulenger. See Le Boulenger.
- Bourquelot, E., inulase and the indirect alcoholic fermentation of inulin, i, 497.
- — — occurrence of trehalose in fungi, ii, 337.
- — — trehalase, a ferment for trehalose, i, 451.
- Boutmy, H. See Nencki.
- Bouveault, L., constitution of camphor and oil of turpentine and of their principal derivatives, i, 276.
- — — hydrolysis of aromatic nitriles, i, 541.
- — — liquid isomeride of hydrocamphene, i, 523.
- — — preparation of triphenylacetoneitrile and triphenylcarbinol, i, 589.

- Bouveau-Lu, L., so-called hydrazone of cyanacetone, i, 571.
- Boyannus, A., allylmethylhexylcarbinol, i, 544.
- Brancovici, E. See Haller.
- Brandenburg, H., abnormal electromotive force of mercury, ii, 356.
- Brandl, J., absorption and secretion from the stomach, ii, 581.
- Brandl, J., and H. Tappeiner, fluorine compounds in the organism, ii, 23.
- Braunschweig, R. See Brühl.
- Bréal, E., assimilation of nitrogen by plants, ii, 590.
- Bredig, G., electrolytic dissociation of water, ii, 448.
- molecular weight of potassium persulphate, ii, 572.
- Breisacher, L., amount of albumin required for the human body, ii, 328.
- Bremer, G. J. W., apparatus for extracting the gases dissolved in water, ii, 432.
- bottle for taking samples of water at known depths, ii, 432.
- Breyer, T., and H. Schweitzer, estimation of potassium by the Lindo-Gladding process, ii, 436.
- Broche, C., tribromacetonitrile, i, 289.
- Brochet, A., condensation of hydrocarbons of the benzene series with those of the ethylene series, i, 635.
- Brochet, A., and P. le Boulenger, condensation of aliphatic alcohols with aromatic hydrocarbons, i, 634.
- Brodie, T. G. See Halliburton.
- Brögger, W. C., sundite, a new mineral from Oruro, Bolivia, ii, 382.
- Brown, A. Crum, and J. Walker, electrolytic synthesis of bibasic acids, i, 394.
- Brown, H. T., and G. H. Morris, a contribution to the chemistry and physiology of foliage leaves, *TRANS.*, 604.
- Brown, J., difference of potential at the contact of mutually reacting liquids, ii, 149.
- electrolytic conductivity and dissociation, ii, 59.
- voltaic cells with fused electrolytes, ii, 403.
- Browning, P. E., detection of strontium in presence of calcium, ii, 47.
- influence of nitric acid and nitrohydrochloric acid on the precipitation of barium sulphide, ii, 552.
- quantitative separation of barium and strontium by the action of amyl alcohol on their bromides, ii, 241.
- Browning, P. E., quantitative separation of strontium and calcium nitrates by means of amyl alcohol, ii, 241.
- Browning, P. E. See also Gooch.
- Bruck, P., di-iodides of tetrolic and acetylenedicarboxylic acids, i, 397.
- Brühl, J. W., ethereal salts of camphoric acid, i, 423.
- spectrochemistry of nitrogen, ii, 254.
- Brühl, J. W., and R. Braunschweig, asymmetrical dicarboxylic acids, i, 251.
- ethereal salts of pyrotartaric acid, i, 307.
- terpenes and their derivatives, i, 277.
- Brunck, O., formation of ozone at high temperatures, ii, 454.
- Brunck, R., thienylindole, α -naphthindole, and some bromo-derivatives of indoles, i, 168.
- Brunlechner, A., desclozite from the Obir, ii, 577.
- Brunner, H., and H. Leins, separation of theobromine and caffeine, ii, 608.
- Brunner, K., dimolecular propionic cyanide: ethyltartronic acid, i, 553.
- synthesis of isomalic acid, i, 145.
- Bruttini, A., colorimetric estimation of small quantities of uranium in minerals, ii, 555.
- Bruyn. See Lobry de Bruyn.
- Bucherer, A. H., formation of aluminium sulphide, ii, 169.
- Buchner, E., synthesis of pyrazole derivatives by means of ethylic diazoacetate, i, 429.
- Buchner, E., and H. Dessauer, 5-phenylpyrazole, i, 282.
- Buchner, E., and M. Fritsch, 4-phenylpyrazole, i, 281.
- preparation and derivatives of pyrazole, i, 432.
- pyrazole-3 : 4 : 5-tricarboxylic acid, i, 432.
- Buchner, E., and A. Papendieck, pyrazole-3 : 5-dicarboxylic acid, i, 431.
- pyrazoline-3 : 5-dicarboxylic acid, i, 430.
- Buchner, E., and H. Witter, pyrazolone-3 : 4 : 5-tricarboxylic acid, i, 431.
- Buchner, G., estimation of the hardness of water by means of soap, ii, 347.
- Hübl's process for testing wax, ii, 351.
- Bucket, M., examination of tartaric and citric acids for lead, ii, 557.

- Büchner, O., trichloropyruvic acid, i, 308.
 Bülow, K., action of amides on benzaldehyde, i, 712.
 Büttner, B. See Claus.
 Bugarszky, S., conditions of chemical equilibrium, ii, 450, 566.
 Bugarszky, S. See also Liebermann.
 Buisman, H. J., and A. R. Van Linge, phosphates from Florida, ii, 419.
 Bujard, A. See Klinger.
 Bunge, N. A., electrolysis of substituted organic acids, i, 640.
 Burkart, E. See Bischler.
 Burls, F. B., R. E. Evans, and C. H. Desch, formation of hydrocyanic acid by the action of nitric acid on sugar, &c., i, 617.
 Burls, F. B. See also Meldola.
 Burns, P. S., reactions of dimolecular nitriles, i, 314.

C.

- Cairola, E. See Fileti.
 Caldwell, G. C., estimation of sugar in tomatoes, ii, 555.
 Camerer, W., Hüfner's method of estimating urea, ii, 560.
 — metabolism in a child 14 months old, ii, 476.
 Camichel, C., absorption of light by liquid bromine, ii, 561.
 Campbell, E. D., estimation of phosphorus in iron in presence of arsenic, ii, 554.
 Cannepin and Van Eijk, titration of morphine in opium, ii, 607.
 Cannizzaro, S., Klein's view of the constitution of santonin, i, 364.
 Cannizzaro, S., and P. Gucci, derivatives of photosantonin acid, i, 665.
 Cantalupo, A. See Fileti.
 Cantor, M., chemistry of secondary batteries, ii, 150.
 Carhart, H. S., a 1-volt standard cell, ii, 562.
 Carlgren, O., and P. T. Cleve, some platinum ammonium compounds, ii, 127.
 Carnot, A., estimation of manganese by oxydimetric methods, ii, 497.
 — estimation of manganese oxides by means of hydrogen peroxide, ii, 497.
 — estimation of phosphorus in iron and steel, ii, 235.
 — — estimation of phosphorus in soil, ii, 489.
 Caro, N., trihydroxyaurin from catechol, i, 274.
 Carpenter, F. B., analysis of tobacco cured by the leaf cure, on wire, and by the stalk process, ii, 547.
 Carr, F. H. See Dunstan.
 Carrara, G., isomeric thetines, i, 633.
 — molecular weight and refractive power of hydrogen peroxide, ii, 163.
 Cash, J. T., and W. R. Dunstan, action of nitrites on muscle, ii, 384.
 Caspari, R., preparation of perchloric acid, and estimation of potassium in presence of non-volatile acids, ii, 390.
 Cassal, C. E., estimation of insoluble fatty acids, ii, 308.
 Cassirer, H., orthocyno- and ortho-nitro-benzyl chloride, i, 16.
 Cathcart, W. R., jun., oximes of symmetrical benzophenones, i, 97.
 Cathcart, W. R., jun., and V. Meyer, indoxazen group, i, 94.
 Catlett, C. See Clarke.
 Causse, H., basic gallate of bismuth, i, 643.
 Causse, H., and C. Bayard, pyrogallol antimonites, i, 75.
 Cazeneuve, P., action of alkali alkyl oxides on camphoric anhydride and other anhydrides, i, 362.
 — constitution of camphor, i, 598.
 — constitution of gallic blue and tannin indigo, i, 510.
 — derivatives of amethylcamphonitroketone, i, 109.
 — gallanilide and its triacetyl and tribenzoyl derivatives, i, 412.
 — metallic derivatives of gallanilide, i, 638.
 — propylamidophenol and its acetyl derivatives, i, 199.
 — propylamidophenol from camphor, i, 152.
 — tinctorial properties of amethylcamphonitroketone, i, 110.
 Cerkez, S. G., rotatory power of salts of quinic acid, i, 644.
 Chalmot. See De Chalmot.
 Chambrier. See De Chambrier.
 Chancel, F., dipropylamidoacetic acid, i, 554.
 — dipropylcarbamide and dipropylthiocarbamide, i, 253.
 — dipropylcyanamide and dipropylcarbodiimide, i, 297.
 — preparation and purification of the propylamines, i, 249.
 — tripropylamidoacetic acid, i, 554.
 Chapman, A. C., the essential oil of hops, *Proc.*, 1893, 177.
 Charrin. See Arnaud.
 Chatelier. See Le Chatelier.
 Chattaway, F. See Bamberger.

- Chattaway, F. D., phenylnaphthalenes. I. α -Phenylnaphthalene, *TRANS.*, 1185.
- Chavanne, L. See Guye.
- Chenel, L., estimation of nitrogen in nitrates and nitro-compounds by Kjeldahl's method, ii, 87.
- Cherix, C., volumetric estimation of sulphuric acid in alkali sulphates, ii, 89.
- Chiaromonte, T., estimation of tannin in wine, ii, 311.
- Chittenden, R. H., and G. L. Amerman, artificial and natural digestion, ii, 423.
- Choay, C. See Béhal.
- Christensen, O. T., reactions with ammonia at low temperatures, ii, 469.
- Chroustchoff, K. v., artificial production of zircon, ii, 128.
- Church, A. H., turacin, i, 184.
- Ciamician, G., and P. Silber, derivatives of quinol, resorcinol, and phloroglucinol, i, 21.
- leucotin and cotogenin, i, 417.
- pseudopelletierine, i, 287.
- symmetrical dimethoxyquinone, i, 409.
- Ciamician, G., and C. U. Zanetti, basic properties of pyrroline derivatives, i, 602.
- Claisen, L., benzoyl-derivatives of benzoylacetone, i, 577.
- condensation of acetaldehyde with acetone, i, 8.
- hydroxymethylene compounds, i, 360, 480.
- Claisen L., and O. Manasse, action of chlorine on isonitrosoketones, i, 464.
- isonitroso-camphor and its derivatives, i, 479.
- Clark, J., Fleitmann's test with arsenic acid, *TRANS.*, 884.
- improvements in Reinsch's test for arsenic, *TRANS.*, 886.
- the use of sodium peroxide as an analytical reagent, *TRANS.*, 1079.
- Clark, T. H., additive products of benzoquinone and toluquinone, i, 320.
- Clarke, F. W., constitution of pitilolite and mordenite, ii, 77.
- Clarke, F. W., and C. Catlett, platiniferous nickel ore from Canada, ii, 286.
- Clarke, F. W., and E. A. Schneider, constitution of certain micas and chlorites, ii, 78.
- Classen, A., quantitative analysis by electrolysis, ii, 391, 495.
- separation of copper from bismuth, ii, 495.
- Classen, A., and B. Zahorski, action of liquid chlorine on metallic chlorides, ii, 464.
- Claus, A., alkyl and alkylene derivatives of substituted cinchonic acids, i, 728.
- aromatic alkyl ketones, i, 162, 464.
- cinchona alkaloids, i, 181.
- constitution of thiocarbamide and phenyldithiobiuret, i, 341.
- derivatives of quinoline, i, 667.
- isomerism of asymmetrical hydrazones, i, 299.
- oximes, i, 355.
- papaverine ethobromides, i, 489.
- parachlororthotoluidine, i, 699.
- stereochemistry of nitrogen, ii, 157.
- Claus, A., and R. Bayer, monochloro-derivatives of orthoxylenes and their relation to the chlororthotoluic acids, i, 586.
- Claus, A., and J. Beckencamp, phenylacridine, i, 718.
- Claus, A., and B. Büttner, alkyl derivatives of 2-phenylcinchonic acid, i, 731.
- Claus, A., and P. Grau, iodoquinolines, i, 669.
- Claus, A., and K. Hoffmann, nitro-derivatives of isoquinoline, i, 366.
- Claus, A., and H. Howitz, 1-bromoquinoline, i, 668.
- hydroxyquinolines, i, 484.
- Claus, A., and C. Massau, 2-nitroquinoline and its derivatives, i, 670.
- Claus, A., and E. Pychlau, 4'-bromonicotinic acid, i, 484.
- Claus, A., and M. Schöller, 1-chloroquinoline, i, 668.
- Claus, A., and E. Stapelberg, parachlororthotoluic acid and its derivatives, i, 580.
- Claus, A., and F. Stohr, alkyl derivatives of quininic acid, i, 728.
- Clement, A. A. See Noyes.
- Clermont. See De Clermont.
- Cleve, P. T. See Carlgren.
- Cochin, D., flame spectra of some metals, ii, 402.
- Cohen, E., and E. Weinschenck, meteoric iron, ii, 20.
- Cohn, G., the condensation products of monobasic acids with resorcinol, i, 719.
- Cohn, G. See also Ehrlich.
- Cohn, R., a complete process of reduction occurring in the animal tissues, ii, 544.
- physiological action of pyridine and naphthalene derivatives, ii, 544.

- Cohn. See Lassar-Cohn.
- Cohnstein, W., alkalinity of the blood during muscular work, ii, 218.
- Colby, G. E., analyses of Californian prunes, apricots, plums, and nectarines, ii, 591.
- Colby, G. E., and H. P. Dyer, analysis of Californian prunes, apricots, and peaches, ii, 140.
- Coleman, J. B., and J. D. Granger, volumetric estimation of calcium phosphate by means of uranium, ii, 301.
- Collie, J. N., the fluorescein of camphoric anhydride, TRANS., 961.
- the production of naphthalene derivatives from dehydracetic acid, TRANS., 329.
- Collie, J. N., and W. S. Myers, the formation of orcinol and other condensation products from dehydracetic acid, TRANS., 122.
- Collier, P., milk of different breeds of cows, ii, 220.
- Colquhoun, W., estimation of urea, ii, 310.
- Colson, A., a limited reaction, ii, 72.
- formula of ordinary tartaric acid, i, 553.
- influence of temperature on the rotatory power of liquids, ii, 255.
- rotatory power of salts of the diamines, ii, 105, 106.
- stereochemistry of malic derivatives: variations in the rotatory power of liquids, i, 457.
- Combes, A., and C. Combes, action of ammonia and of aliphatic amines on acetylacetone, i, 454.
- action of diamines on acetylacetone, i, 454.
- Combes, A., and Le Bel, supposed secondary hexyl alcohol from mannitol, i, 246.
- Combes, A. See also Friedel.
- Coninck. See De Coninck.
- Conrad, M., and W. Fischer, α -naphtholsulphonic acids, i, 221.
- Cooke, Miss E. See Howell.
- Cooke, W. W., and J. L. Hills, abnormal milk, ii, 428.
- Coote, A. H. See Hodgkinson.
- Coppet. See De Koppet.
- Cormimboeuf, H., action of potassium and sodium hydroxides on antimony trioxide, ii, 171.
- crystallised sodium titanates, ii, 125.
- Corse, M. B., and C. Baskerville, glauconite from Hanover Co., Virginia, ii, 287.
- Corselli, G. See Minunni.
- Cossa, A., new series of basic platinum compounds, i, 364.
- Coudon, H. See Müntz.
- Cousin, H., action of sulphuric acid on catechol and on homocatechol, i, 637.
- ethers of homocatechol, i, 258.
- Couturier, F., pinacone and its derivatives, i, 244.
- Cramer, E., volatilization of silica, ii, 164.
- Cremer, M., phloridzin diabetes in frogs, ii, 480.
- physiological action of sugars, ii, 585.
- Cremer, M., and A. Ritter, phloridzin diabetes, ii, 31, 480.
- Cristaldi. See Grassi-Cristaldi.
- Crook, W. G., detection of cotton seed oil in lard, ii, 603.
- Cross, C. F., and E. J. Bevan, explosive nitrates from the jute fibre, i, 295.
- Cross, C. F., E. J. Bevan, and C. Beadle, the interaction of alkali cellulose and carbon bisulphide: cellulose thiosulphocarbonates, TRANS., 837.
- Cross, W., constitution of spherulites in acid eruptive rocks, ii, 287.
- Cross, W., and L. G. Eakins, new occurrence of ptilolite, ii, 77.
- Crossley, A. W. See Schuster.
- Cumenge, E., new mineral from Boléo, Mexico, ii, 417.
- Curci, A., behaviour of xylenes in the organism, ii, 178.
- Curtius, T., azoimide from hydrazine hydrate and nitrous acid, ii, 372.
- hippurylphenylbuzylene: new synthesis of azoimide, i, 463.
- hydrazine derivatives, i, 299.
- Cushny, A. R., alkaloids of *Gelsemium sempervirens*, i, 614.

D.

- Dafert, F. W., estimation of nitrogen in soils, ii, 601.
- D'Aladern, R., heat of formation of some derivatives of indigotin, i, 649.
- Danilewsky, B., physiological action of cocaine, ii, 334.
- Danner, E. W. See Gooch.
- Dashiell, P. J., parethoxyorthotoluenesulphonic acid, i, 343.
- Dashiell, P. J. See also Remsen.
- Da Silva. See Ferreira da Silva.
- Davidson, R. J., chemistry of the tobacco plant, ii, 38.

- De Beil, J. T., cuproplumbite from Butte City, Montana, ii, 286.
 ———— statuary marble from Rutland, Vermont, ii, 286.
 De Boisbaudran, L., samarium, ii, 323, 526.
 De Bruyn. See Lobry de Bruyn.
 Decey, T., oxalyl derivatives, i, 554.
 De Chalmot, G., pentosans in plants, ii, 430.
 ———— soluble pentoses in plants, i, 247.
 De Chambrier, P., supposed formation of orthocresol from methyl-salicylic acid, i, 563.
 Decker, H., action of alkalis on pyridine alkyl iodides and similar bases, i, 279.
 ———— so-called quinolinium bases, i, 365.
 ———— some ammonium compounds, i, 115.
 De Clermont, P., oxidation of nickel sulphide, ii, 528.
 De Coninck, O., distinction between isomeric amidobenzoic acids and other isomeric compounds of the benzene series, i, 641.
 ———— isomeric amidobenzoic acids, i, 413, 465.
 De Coppet, L., temperature of maximum density of aqueous solutions, ii, 60.
 ———— temperature of maximum density of mixtures of alcohol and water, ii, 61.
 Deeley, R. M., a new diagram and periodic table of the elements, TRANS., 852.
 De Forcrand, alkali phenoxides, i, 316.
 ———— compounds of alkali phenoxides with phenol, i, 409.
 ———— constitution of phosphoric acid and the thermal value of its three acid functions, ii, 60.
 De Forcrand, R., hydrates of alcohols, i, 291.
 De Hemptinne, A., electrical conductivity of flames and gases, ii, 563.
 Delhérain, P. P., drainage water from arable soil, ii, 338.
 ———— soil and nitrification, ii, 486.
 De Koninck, L. L., detection of ammonia with Nessler's reagent, ii, 301.
 De Koningh, L., estimation of oleic acid, ii, 251.
 De la Harpe, C. See Reverdin.
 Delisle, A., and A. Schwalm, organic sulphur compounds, i, 35.
 Demarcay, E., simple nature of samarium, ii, 526.
 Demyanoff, N., action of nitrous acid on tetramethylenediamines, i, 453.
 Dengler, L. See Engler.
 Denigès, G., identification and estimation of the lactoses in different milks, ii, 502.
 ———— metaphosphoric acid as a precipitant of proteids in the estimation of sugar in milk, ii, 248.
 ———— preparation of sulphites of zinc, magnesium, and cadmium, ii, 277.
 Dennstedt, M., action of propyl alcohol on pyrrole, i, 226.
 De Norwall, F. K. See Einhorn.
 Denozza, M., isoeugenolglycollic acid and eugenolglycollic acid, i, 643.
 Der Heide. See Van Der Heide.
 Deroide, E., estimation of uric acid in urine, ii, 101.
 Der Plaats. See Van der Plaats.
 De Saint Martin, L., elimination of carbonic oxide, ii, 131, 288.
 De Sanderval, dissociation of sodium chloride in presence of heated surfaces of porous clay, ii, 316.
 De Saporta, A., relation between the sp. gr. of acid or saline solutions and the molecular weight of the dissolved substance, ii, 7.
 Desch, C. H. See Burls.
 Dessauer, H. See Buchner.
 Deszàthy, A., solubility of barium and calcium butyrates, i, 547.
 Devarda, A., direct estimation of nitrogen in saltpetre, ii, 343.
 Deventer. See Van Deventer.
 De Visser, L. E. O., experiments with the manocryometer, ii, 563.
 ———— lecture experiment with the manocryometer, ii, 566.
 Dewar, J. See Liveing.
 Dewevre, glycogenic function in winter frogs, ii, 218.
 Dianin, A., condensation of ketones with phenols, i, 214.
 Dieck, H. L. See Smith.
 Dieckmann, W. See Bamberger.
 Dierbach, R., anilidosalicylic acid, i, 211.
 Dieterich, E., preparation of cantharidin, i, 600.
 Diller, J. S., mica-peridotite from Kentucky, ii, 79.
 ———— peculiar lava from Northern California, ii, 578.
 Ditte, A., a cadmium and ammonium chloride battery, ii, 403.
 ———— decomposition of alkali aluminates by carbonic acid, ii, 279.
 ———— decomposition of alkali aluminates in presence of alumina, ii, 278.
 ———— industrial preparation of alumina, ii, 324.
 ———— Leclanché battery, ii, 355, 402.

- Ditte, A., and R. Metzner, action of antimony on hydrochloric acid, ii, 126.
 ——— action of bismuth on hydrochloric acid, ii, 172.
- Dittmar, W., and J. B. Henderson, gravimetric composition of water, ii, 410.
- Dixon, A. E., action between thiourea and some haloïd derivatives of the fatty acids, TRANS., 815.
 ——— an isomeric form of benzylphenylbenzylthiourea, TRANS., 538.
 ——— desulphurisation of the substituted thioureas, TRANS., 318.
- Dobbie, J. J., and A. Lauder, a new alkaloid from *Corydalis cava*, TRANS., 485.
- Dollfus, W., hydrocinnamaldoxime, i, 710.
- Donath, E., cobalt, ii, 468.
 ——— estimation of aluminium in ferro-aluminium, ii, 96.
- Donnini, P. See Antony.
- Dorp. See Van Dorp.
- Doss, B., pseudobrookite, hæmatite, and anhydrite as sublimation products, ii, 18.
- Doyon, M. See Morat.
- Drechsel, E., behaviour of α -amido-propionic acid at high temperatures, i, 132.
- Dreher, E., and S. v. Kostanecki, constitution of the monhydroxy-xanthenes, i, 1, 217.
- Drehschmidt, H., estimation of cyanogen in gas refuse and in illuminating gas, ii, 50.
- Dreyer, H. See Schmidt.
- Drossbach, G. P., electrolytic estimation of copper, ii, 93.
- Dryfoos, L. A. See Mason.
- Duclaux, absorption of free nitrogen by plants, ii, 138.
 ——— the phosphates of milk, ii, 582.
- Duden, P., pyrazoles from unsaturated acids and hydrazines, i, 231.
- Duden, P. See also Knorr.
- Dudley, C. B., and F. N. Pease, estimation of phosphorus in steel, ii, 553.
- Düll, G. See Linter.
- Duncan, C., and F. Hoppe-Seyler, diffusion of oxygen and nitrogen in water, ii, 62.
 ——— respiration in fishes, ii, 81.
- Dunnington, F. P., and T. C. Whitlock, analysis of "black earth," ii, 293.
- Dunstan, W. R., and F. H. Carr, the aconite alkaloids. Part V. The composition of some commercial specimens of aconitine, TRANS., 491.
- Dunstan, W. R., and F. H. Carr, the aconite alkaloids. Part VI. Conversion of aconitine into isaconitine, TRANS., 991.
- Dunstan, W. R., and T. S. Dymond, the isomerism of the paraffinic aldioximes, PROC., 1893, 76.
- Dunstan, W. R., and E. F. Harrison, the aconite alkaloids. Part IV. On isaconitine (napelline), TRANS., 443.
- Dunstan, W. R., and H. A. D. Jowett, the aconite alkaloids. Part VII. On some modifications of aconitine aurochloride, TRANS., 994.
- Dunstan, W. R., and W. F. J. Shephard, the identity of caffeine and theine and the reactions of caffeine with auric chloride, TRANS., 195.
- Dunstan, W. R. See also Cash.
- Dupont, J., preparation of methylbenzoic anilide, i, 268.
- Dupont, J., and H. Jansen, copper oxybromide, analogous to atacamite, ii, 463.
- Dyer, B., and J. F. H. Gilbard, discrimination between genuine and exhausted ginger, ii, 611.
- Dyer, H. P. See Colby.
- Dymond, T. S. See Dunstan.

E.

- Eakins, L. G. See Cross.
- Earle, J. J. See Pickell.
- Earp, Miss A. G., boiling points and melting points of sulphur compounds, ii, 445.
- Easterfield, T. H. See Sell.
- Eaton, R. G. See Howell.
- Ebersbach, F. P., affinity coefficients of aromatic amidosulphonic acids, ii, 450.
- Ebstein, W., physiological action of pentoses, ii, 427.
- Eckel, R. See Töhl.
- Eckenroth, H., and M. Wolf, phenylic and α - and β -naphthyl salicylates, i, 514.
- Eckstein, F., phenylhydrazodiisobutyronitrile and the products of its hydrolysis, i, 85.
- Edler, manuring potatoes, ii, 593.
- Effront, J., chemical conditions of the action of diastases, i, 187.
- Egoroff, I. V., Reychler's artificial diastase, i, 743.
 ——— wheat diastase, i, 743.
- Ehrenberg, A., ethereal oil from the root of *Aspidium filix mas*, i, 625.
- Ehrlich, P., and G. Cohn, action of acid chlorides on nitrosodimethylaniline, i, 564.

- Eickholz, A., urobilin, i, 538.
 Eijk. See Van Eijk.
 Einhorn, A., dihydrobenzaldehyde, i, 341.
 Einhorn, A., and L. Fischer, dihydroxytropidine, i, 738.
 Einhorn, A., and A. Friedländer, nor-*r*-ecgonine, i, 537.
 Einhorn, A., and A. W. Gilbody, action of chloral on pyridine bases from Messel, i, 527.
 Einhorn, A., and F. K. de Norwall, action of bromine on dihydrobenzaloxime, i, 332.
 — amides of ecgonine, i, 445.
 Einhorn, A., and Y. Tahara, constitution of anhydroecgonine, i, 377.
 Einhorn, A., and R. Willstätter, hydrogenised paratoluic acids, i, 713.
 Eisenlohr, J. See Wolff.
 Elbs, K., derivatives of diphenyltrichlorethane and their conversion into stilbene, i, 271.
 — electrolysis of trichloroacetic acid, i, 250.
 — nitroquinol, i, 640.
 — preparation of ammonium persulphate, ii, 516.
 Ellenberger and Hofmeister, behaviour of sterilised milk towards digestive fluids, ii, 217.
 Ellinger, A. See Marckwald.
 Elroy. See Mac Elroy.
 Elsaesser, E. See Gaess.
 Elten, M. See Seubert.
 Embden, H., alcaptonuria, ii, 82.
 Emery, W. O. See Anschütz.
 Emich, F., behaviour of nitric oxide at a high temperature, ii, 66.
 — microchemical detection of sulphur, ii, 295.
 Emmens, S. H., nickel analysis, ii, 393.
 Engler, C., and L. Dengler, condensation of acetophenone on heating alone or with zinc chloride, i, 512.
 Engler, C., and E. Löw, behaviour of organic acids and ethereal salts at high temperatures, i, 512.
 Engler, C., and L. Singer, recognition of paraffin and of lubricating oil in the distillate of train oil under pressure, i, 493.
 Engler, C., and M. Steude, behaviour of trichloroacetic acid at a high temperature, i, 499.
 Ephraim, J., action of phenylhydrazine on lactones, i, 522.
 — amido-derivatives of quinoline, i, 727.
 — derivatives of kyanidine, i, 735.
 Eppens, A. See Koenigs.
 Erdmann, E., preparation of benzidine, i, 470.
 Erdmann, H., behaviour of sodium and potassium naphthionates at high temperatures, i, 655.
 — dichloronaphthalenes, 651.
 — oxidation of chloroform with chromic acid, and preparation of carbon oxychloride from carbon tetrachloride, i, 681.
 — preparation and nitration of orthochlorobenzaldehyde, i, 160.
 — Sandmeyer's reaction and preparation of orthochlorotoluene, i, 150.
 — separation and constitution of isomeric naphthalene derivatives, i, 651.
 — sulphonation of α -naphthylamine, i, 653.
 — synopsis of the naphthylamine-sulphonic acids, i, 655.
 Erdmann, H., and F. Henke, derivatives of 3':1'-acetanaphthol, i, 652.
 Erdmann, H., and E. Schwechten, synthetical tri-derivatives of naphthalene, i, 653.
 Erdmann, H., and C. Sövern, compounds of substituted naphthalenesulphonic acids with organic bases, i, 653.
 — isomeric α -mononitronaphthalenemonosulphonic acids, i, 651.
 — perinitronaphthalenesulphonic acid, i, 652.
 Erlenmeyer, E., jun., benzoylamido-cinnamic acid, i, 582.
 — α -benzoylamidophenylpropionic acid, i, 581.
 — condensation of hippuric acid with phthalic anhydride and with benzaldehyde, i, 580.
 — new phenylamidolactic acid from glycocine and benzaldehyde, i, 166.
 — phenylpyruvic and phenylglycidic acids, i, 36.
 — separation of cinnamic acid dibromide into its optically active constituents, i, 582.
 Ernst, O., new tap for vacuum desiccators, ii, 453.
 Ernst, F., hyalin and colloïd, ii, 218.
 — kerato-hyalin, ii, 218.
 Ernst, R., combustion of carbon in air, ii, 461.
 Errera, G., camphoramine, i, 108.
 Étard, A., action of zinc chloride on chlorocamphor: relation between camphor and carvacrol, i, 524.
 — aldehydes from terpenes, i, 360.
 — benzoynicotine, i, 736.
 — constitution of nicotine and acetylnicotine, i, 675.
 — melting points of solvents as the inferior limits of solubilities, ii, 111.

- Evans, P., condensation of β -diketones with carbamide and thiocarbamide, i, 129.
- Evans, R. E. See Burls.
- Evans, W. N., obituary notice of, *TRANS.*, 751.
- Ewald, A., influence of heat on gas exchange, ii, 131.
- Ewan, T., absorption spectra of copper salts in aqueous solution, ii, 149.
- Ewell, E. E., carbohydrates of the coffee berry, ii, 84.
- Ewell, E. E., and H. W. Wiley, products of cassava, ii, 430.
- Exner, F., electrochemical investigations, ii, 255.
- Eykman, J. F., formula of tropine, i, 537.
- refractometric observations, ii, 1.
- F.**
- Fabris, G. See Villavecchia.
- Fahlberg, C., action of phosphoric chloride on orthobenzoisulphimide, i, 716.
- Fahrion, W., analysis of oils, ii, 603.
- Hübl's iodine numbers, ii, 103.
- new method of fat analysis, ii, 604.
- testing linseed oil varnish, ii, 56, 148.
- Fairley, T., estimation of chlorine in water, ii, 550.
- Fajans, A., estimation of salicylic acid in presence of phenols, ii, 440.
- Falières. See Barthe.
- Farchy, J. M., and J. Tafel, isomeric diamidosuccinic acids, i, 692.
- Farnakovsky, N., tar from the bark of *Populus tremula*, i, 454.
- Fauvet, C. See Freund.
- Favorsky, A. E., action of potassium carbonate on dichloroketones, i, 391.
- Favrel, G., volumetric estimation of alkalis in alkali arsenites, ii, 598.
- volumetric estimation of pyrophosphoric acid and alkali pyrophosphates, ii, 597.
- Fayrer, J., cardiac and pulmonary thrombosis, ii, 541.
- Feist, F., formation of coumalin rings, i, 403.
- Fellrath, E. See Beckmann.
- Fenton, H. J. H., the oxidation of tartaric acid in presence of iron, *PROC.*, 1893, 113.
- Féré, C., and L. Herbert, accumulation of potassium bromide in the organism, ii, 176, 217.
- accumulation of strontium bromide in the organism, ii, 217.
- Fernau, A., isocarbostyryl, i, 417.
- Ferratini, A., conversion of indoles into quinolines, i, 602.
- tetrahydroisoquinoline, i, 227.
- trimethyltetrahydroquinoline, i, 227.
- Ferratini, A., and F. Garelli, behaviour of indole and some of its derivatives with respect to Raoult's law, ii, 156.
- Ferratini, A. See also Garelli.
- Ferreira da Silva, S. J., eserine and a new colouring matter derived from it, i, 741.
- Ferrier, C., estimation of sodium sulphide, sulphite, and thiosulphate in glycerol from soap works, ii, 348.
- Fertsch, F. C. See Jacobson.
- Féry, C., study of chemical reactions in a liquid mass by means of the index of refraction, ii, 201.
- Field, Miss E., note on the interactions of alkali haloids with lead and bismuth haloids, *TRANS.*, 540.
- Fileti, M., oxidation and derivatives of erucic acid, i, 551.
- stereoisomeric isopropylphenylglycollic acids, i, 212.
- Fileti, M., and G. Baldracco, homoterephthalic acid, i, 467.
- Fileti, M., and E. Cairola, derivatives of homoterephthalic acid, i, 212.
- Fileti, M., and A. Cantalupo, preparation of zinc ethide, i, 196.
- Finger, H., derivatives of orthamidobenzamide, i, 574.
- Finkenbeiner, H. See Liebermann.
- Fiquet, E., condensation of aliphatic aldehydes with cyanacetic acid, i, 455.
- Fireman, P. See Bischler.
- Fischer, B., and B. Grützner, homologues of phenol, i, 563.
- Fischer, E., adonitol, a new pentitol, i, 291.
- amidoacetaldehyde (ethanalanine), i, 187, 300.
- formation of isoquinoline, i, 427.
- Fischer, E., and W. L. Jennings, constitution of hydrocyanorosaniline and of magenta, i, 711.
- Fischer, E., and E. Schmidmer, rise of salt solutions in bibulous paper, ii, 109.
- Fischer, L. See Einhorn.
- Fischer, O., orthodiamine derivatives, i, 283.
- Fischer, O., and E. Franck, ammonium derivatives of azines, i, 282.
- Fischer, O., and O. Heiler, oxidation products of orthodiamines, i, 266.

- Fischer, O., and E. Hepp, action of alkalis on paranitrotoluene and on paranitrotoluenesulphonic acid, i, 697.
- constitution of the mauve-ines, i, 464.
- fluoresceinamide, i, 721.
- naphthyl-red and Magdalar-red, i, 721.
- relation of safranines to indulines, i, 613.
- the induline group, i, 333.
- Fischer, O., and A. Junk, naphthazines, i, 283.
- Fischer, W. See Conrad, Jacobson.
- Fisher, W. W., anhydrous oxalic acid, *Proc.*, 1892, 186.
- Fittig, R., aticonic acids, new isomerides of itaconic, citraconic, and mesaconic acids, i, 691.
- brom-additive products of angelic and tiglic acids, i, 188.
- constitution of the unsaturated acids obtained by boiling unsaturated $\beta\gamma$ -acids with soda, i, 688.
- intramolecular changes in unsaturated acids, i, 189.
- Flavitzky, F., theory of chemical types, ii, 408.
- Fleck, H., alkyl compounds of magnesium, i, 622.
- Fleischhauer, H., condensation of cyanides with ethereal salts by means of sodium ethoxide, i, 396.
- Fleissner, F. See Lippmann.
- Fleurent, E., combination of cuprous cyanide with alkali cyanides, i, 289.
- Flint, E. R., and B. Tollens, estimation of pentosans and pentoses in vegetables, ii, 52.
- oxycellulose and bornesitol, i, 295.
- Foerster, F., compounds of copper acetate with ammonia and with pyridine, i, 131.
- Foerster, O., formation and properties of tetracalcium phosphate, ii, 70.
- valuation of basic slags, ii, 344.
- Forcrand. See De Forcrand.
- Forster, M. O. See Meldola, Tilden.
- Forté, O., derivatives of cresolglycollic acids, i, 269.
- Fortmann, G., orthomethamidobenzoic acid, i, 414.
- Fortner, P., isoquinoline derivatives, i, 608.
- Foster. See Le Neve Foster.
- Fournier, H., paradiethylbenzene, i, 408.
- pentethylbenzene, i, 409.
- Fox, F., condensation of orthochlorobenzotrichloride by means of metals, i, 351.
- Fränckel, S., glycogen, i, 386.
- Fränkel, E., and F. Reiche, sulphuric acid poisoning, ii, 335.
- Franchimont, A. F. N., pentacetyl derivatives of glucose, i, 246.
- Frank, E. See Fischer.
- Frank, O., absorption of fats, ii, 24.
- Frankel, L. K., detection of lead in urine, ii, 606.
- Frankfurt, S. See Schulze.
- Frankland, P. F., and J. R. Appleyard, salts of glyceric acid, active and inactive: the influence of metals on the specific rotation of active acids, *Trans.*, 296.
- Frankland, P. F., and J. MacGregor, ethereal salts of diacetyl-glyceric acid in relation to the connection between optical activity and chemical constitution, *Trans.*, 1419.
- ethereal salts of glyceric acid, inactive and active, *Trans.*, 511.
- normal butylic, heptylic, and octylic salts of active glyceric acid, *Trans.*, 1410.
- sarcolactic acid, obtained by the fermentation of inactive lactic acid, *Trans.*, 1028.
- Freer, P. C., ethylic acetacetate and ethylic salicylate, i, 66.
- Freer, P. C., and G. O. Higley, reduction of nitric acid by copper, ii, 272.
- Frenkel, M., palladium compounds, ii, 195.
- Frenzel, A., kyindrite, ii, 576.
- Fresenius, R., separation of barium, strontium, and calcium, ii, 436.
- separation of strontium from calcium, ii, 301.
- Freudenberg, H., electromotive force in electrolytic analyses, ii, 506.
- Freund, M., hydrastine, i, 116.
- Freund, M., and C. Fauvet, geissospermine, i, 446.
- Freund, M., and H. Haase, paranitrophenylmethyloxybiazalone and its decomposition products, i, 534.
- Freundler, influence of organic solvents on rotatory power, ii, 562.
- Freundler, P., alkyl tartrates, i, 73.
- Freyer, F., and V. Meyer, ignition temperature of explosive gases, ii, 257.
- Freytag, F. See Kossel.
- Friedel, C., existence of the diamond in the meteoric iron of Cañon Diablo, ii, 174, 288.
- metaldehyde, i, 547.
- reproduction of diamonds, ii, 276.

- Friedel, C., rotatory power of salts of diamines, ii, 105.
 — stereochemical notation, i, 195.
 — stereochemistry, ii, 255.
 — the meteorite from Cañon Diablo, ii, 174, 288.
 Friedel, C., and A. Combes, action of phenylhydrazine on camphoric anhydride and ethereal camphorates, i, 600.
 Friedel, G. See Mallard.
 Friedheim, C., history of the complex inorganic acids, ii, 378.
 — molybdoarsenates, ii, 282.
 — phosphomolybdates, ii, 472.
 — volumetric estimation of free chlorine, ii, 488.
 Friedheim, C., and H. Leo, estimation of acids by calcium carbonate, ii, 342.
 Friedheim, C., and R. Meyer, preparation of tungstates free from molybdenum, ii, 125.
 Friedheim, C., and R. J. Meyer, quantitative separation and estimation of chlorine, bromine, and iodine, ii, 183.
 Friedheim, C. See also Rosenheim.
 Friedländer, A. See Einhorn.
 Friedländer, P., phenolphthaleïn, i, 273.
 Friedlaender, P., and A. Stange, phthaleïnoxime, i, 719..
 Friedmann, A., and L. Gattermann, action of thiocarbimides on aromatic hydrocarbons, i, 153.
 Friedrich, H., lead tetrachloride, ii, 415.
 Fritsch, M. See Buchner.
 Fritsch, P., acetyldiphenylcarbamide, i, 340.
 — chlorination of acetone, i, 303.
 — synthesis of isocoumarin and isoquinoline derivatives, i, 366.
 Fritz, H., relations of the physical and chemical properties of the chemical elements and compounds, ii, 155.
 Fritzsche, E. See Möhlau.
 Fritzweiler, E. See Paal.
 Fromm, E., phenyldithiobiuret, i, 575.
 Fuchs, O. See Zincke.
 Fulton, H. B., specific gravity apparatus, ii, 264.

G.

- Gabriel, S., nutritive value of asparagine, ii, 177.
 Gabriel, S., and W. Michels, triamidopropane, i, 31.
 Gabriel, S., and A. Neumann, conversion of phthalide derivatives into those of $\alpha\alpha$ -diketohydrindone, i, 415.
 — — derivatives of phthalazine and isoindole, i, 346.
 — — synthesis of isoquinoline derivatives, i, 228.
 Gabriel, S., and G. Pinkus, amidoketones, i, 734.
 — — phthalazine, i, 732.
 Gärtner, C., pentamethylene and its derivatives, i, 557.
 — pentamethylenecarboxylic acid, i, 557.
 Gaess, F., and E. Elsaesser, condensation of metaphenylenediamine with α -naphthol, i, 420.
 Gal, J., plastic sulphur from sulphur vapour, ii, 455.
 Gammarelli, P., estimation of nitric acid by means of cinchonamine salts, ii, 297.
 Gantter, F., detection and approximate estimation of cotton seed oil in lard and olive oil, ii, 440.
 — detection of saccharin in beer, ii, 504.
 — discrimination of butter from margarin, ii, 603.
 — iodine absorption, ii, 309.
 — valuation of hide clippings for glue making, ii, 610.
 Garbutt, L., note on a form of burette for rapid titration, *Proc.*, 1893, 183.
 Garcia, A., ptomaines, i, 538.
 Gardner, J. A. See Marsh.
 Garelli, F., a ketone obtained from ethylic dihydrocollidinedicarboxylate, i, 667.
 Garelli, F., and A. Ferratini, phenanthrene as a solvent in cryoscopic determinations, ii, 512.
 Garelli, F. See also Ferratini.
 Garnier, J., influence of electricity on the carburization of iron by cementation, ii, 527.
 Garnier, L., separation of arsenic from antimony, ii, 600.
 Garnier, M., toxicological examination for metals, ii, 598.
 Garrett, F. C. See Oliver.
 Garrod, A., urea in the blood of birds, ii, 581.
 Garrod, A. E., urinary hæmatoporphyrin, ii, 480.
 Garros, F., organised ferment from cherry tree gum : pectinose, ii, 180.

- Gabriel, S., fluorine in bones and teeth, ii, 81.
 — influence of sodium chloride on the digestibility and assimilation of pectoid, ii, 579.

- Garzino, L., triphenylpiperazine, i, 428.
 Gascard, A., calculus in muscle, ii, 334.
 — myricyl alcohol, i, 683.
 — wax of gum lac, i, 548.
 Gassmann, A., hydrogen bromide, ii, 453.
 Gattermann, L., electrolytic reduction of aromatic nitro-compounds, i, 566.
 Gatterman, L. See also Friedmann, Hartmann, Stockhausen, Tust.
 Gaube, J., carbonated albuminuria, ii, 221.
 Gautier, A., a new type of phosphorites, ii, 419.
 — formation of natural aluminium and iron phosphates, ii, 536.
 — new natural phosphates, ii, 577.
 — phosphatic rocks of animal origin and a new type of phosphorites, ii, 419.
 — tobacco smoke, i, 226.
 Gautier, H. See Moissan.
 Geelmuyden, H. C., some results of transfusion, ii, 22.
 Geigel, R., and L. Abend, secretion of hydrochloric acid in nervous dyspepsia, ii, 219.
 Genth, F. A., agularite, ii, 214.
 — anglesite associated with bolcite, ii, 326.
 — danalite, ii, 215.
 — metacinnabarite, ii, 215.
 — penfeldite, a new mineral species, ii, 76.
 Genvesse, P., ethylic carbacetate, i, 306.
 — ethylic pyruvate and the product of its condensation by hydrogen chloride, i, 552.
 — method of preparing brominated fatty acids, i, 65.
 — some substituted benzenoid hydrocarbons, i, 562.
 — syntheses with aluminium chloride, i, 505.
 Georgescu, M., benzenesulphonates of the aromatic series, i, 478.
 Gérard, E., ferment in *Pencillium glaucum*, resembling emulsin, i, 774.
 — transformation of the albumin of the urine in Bright's disease, ii, 30.
 Gerhard, F., estimation of iron in spring water, ii, 198.
 Gerrard, A. W., estimation of glucocse, ii, 248.
 Gerock, J. E. See Schneegans.
 Gfeller, E. See Graebe.
 Ghira, A., atomic refraction of boron, ii, 517.
 — cryoscopic behaviour of some acetates of feeble bases, i, 667.
 Gibson, H. B., liberation of nitrogen during putrefaction, ii, 224.
 Gibson, J., on glucinum, TRANS., 909.
 Gigli, T., decomposition of solutions of oxalic acid, i, 395.
 Gilbard, J. F. H. See Dyer.
 Gilbody, A. W. See Einhorn.
 Gill, A. H., condensation of ortho-chlorobenzal chloride by means of metals, i, 351.
 — estimation of carbonic anhydride in the air of buildings, ii, 240.
 Gillespie, A. L., bacteria of the stomach, ii, 223.
 Gintl, W. H., urson, i, 601.
 Giorgis, G., estimation of chromium in products of the iron industry, ii, 554.
 Girard, A., migration of the starch of potatoes in the tubers, ii, 485.
 Girard, A. C. See Müntz.
 Giustiniani, E., compounds of malic and fumaric acids with aromatic amines, i, 264.
 Gladky, P., estimation of oxygen in iron, ii, 388.
 Gladstone, J. H., molecular refraction and dispersion, ii, 254.
 — reactions of ferric salts with thiocyanates, i, 289.
 Gläser, M., and W. Kalmann, new iodine spring in Austrian Silesia, ii, 579.
 Glaser, C., separation of iron oxide from alumina in phosphatic rocks by fusion with an alkali carbonate, ii, 346.
 Glatzel, E., normal thiophosphates, ii, 458.
 Glazebrook, R. T., and S. Skinner, Clark cell as standard of E.M.F., ii, 107.
 Glinka, F., analysis of silicates by Deville's method, ii, 491.
 Glücksmann, C. See Pribram.
 Gmelin, B., constitution of leucine, i, 501.
 Godlewski, E., nitrification, ii, 544.
 Göhlich, W. See Schmidt.
 Görtz, A. See Lellmann.
 Goldschmidt, H., carvole, i, 723.
 Goldschmidt, H., and W. H. van Rietschoten, action of isocyanates on aromatic aldoximes, i, 707.
 — isomeric orthonitrobenzaldoximes, i, 709.
 Goldschmiedt, G., laudanine, i, 181.
 Goldschmiedt, G., and F. v. Hemmelmayr, scoparin, i, 601.
 Goldschmiedt, G., and F. Schranzhofer, papaverinic acid, i, 180.

- Golenkin, A., and A. Klepikof, oxidation of quinoline by potassium permanganate, i, 44.
- Gomberg, M., trimethylxanthine derivatives, i, 375.
- Gonnard, F., the mesotype group in the Puy-de-Dôme, ii, 287.
- zirconiferous felspathic inclusion in basalt, ii, 418.
- Gooch, F. A., and P. E. Browning, estimation of iodine in haloid salts by the action of arsenic acid, ii, 488.
- Gooch, F. A., and E. W. Danner, certain points in the interaction of potassium permanganate and sulphuric acid, ii, 15.
- Gooch, F. A., and H. W. Gruener, iodometric estimation of nitrates, ii, 42.
- Gooch, F. A., and J. I. Phinney, estimation of rubidium by the spectro-scope, ii, 240.
- Gore, G., chemical equilibrium in mixed electrolytes, ii, 150.
- method of measuring loss of energy due to chemical union, ii, 63.
- relation of volta-electromotive force to pressure, ii, 256.
- Gossart, E., higher alcohols and other impurities in ethyl alcohol, ii, 393.
- Gourlay, F., proteids of the spleen and thyroid, ii, 425.
- Gouy, effects of gravity on fluids at the critical point, ii, 112.
- Gow, W. J. See Harris.
- Goyder, G. A., stibiotantalite, a new mineral, TRANS., 1076.
- Graebe, C., bidiphenylenethylene, a red hydrocarbon, i, 38.
- preparation of orthochloro- and orthobromo-benzoic acid, i, 641.
- Graebe, C., and F. Bossel, oxidation of naphthalic acid, i, 593.
- Graebe, C., and E. Gfeller, oxygenated derivatives of acenaphthene, i, 656.
- Graebe, C., and K. Lagodzinski, acridone, i, 649.
- Graebe, C., and A. Philips, hydroxy-derivatives of anthraquinolinequinone, i, 670.
- Graebe, C., and C. A. Wander, phenanthridone, i, 658.
- Graff, W., detection of foreign fats in wool fat, ii, 397.
- Graffenberger, L., estimation of milk fat with Demichel's lactobutyrometer, ii, 55.
- influence of light on metabolic processes, ii, 580.
- Graftian, J. See Petermann.
- Grandis, V., gaseous tension in the blood and serum of peptonised animals, ii, 131.
- Grandmougin, E. See Michel, Noetting, Witt.
- Grandval, A., and H. Lajoux, estimation of alkaloids, ii, 608.
- estimation of caffeine, ii, 559.
- Grandval, A. See also Lajoux.
- Granger, A., cuprous phosphide, ii, 526.
- Granger, J. D. See Coleman.
- Grassi-Cristaldi, G., action of hydrochloric acid on the santonones: bisdihydrosantoninic acid, i, 425.
- fumaroid and maleinoid structure of some of the derivatives of the santonins, i, 425.
- oxidation products of the santonic acids, diparaxylyl and diphenyl, i, 665.
- reduction products of santonins: santone and isosantonone, i, 110.
- Grau, P. See Claus.
- Gray, A. D. See Hooker.
- Green, A. G., qualitative analysis of coal-tar colouring matters, ii, 610.
- the oxidation of paratoluidine, TRANS., 1395.
- Green, J. R. See Vines.
- Greene, W. H., and W. H. Wahl, method for reducing metallic oxides, ii, 520.
- Gregor. See Mac Gregor.
- Gréhant, N., and E. Martin, physiological action of opium smoke, ii, 179.
- Griessmayer, V., dextrin, i, 684.
- Griffiths, A. B., γ -achroglobin, a new respiratory globulin, i, 236.
- δ -achroglobin from the blood of certain mollusca, i, 615.
- echinochrome, a respiratory pigment, i, 59.
- new bacillus in rain water, ii, 83.
- pigments of lepidoptera, i, 236.
- ptomaine from the urine in cases of eczema, i, 614.
- ptomaines from the urine in erysipelas and puerperal fever, i, 183.
- respiratory globulin from the blood of *Chiton*, i, 60.
- Griggi, G., detection of hydrogen peroxide, ii, 233.
- Grigorovitch, A., and D. Pavloff, action of acid chlorides on zinc ethide, i, 124.
- Grimaldi, G. P., Cailletet and Colardeau's method of determining critical points, ii, 111.
- Grimaux, E., quinine double salts, i, 115.
- Grimaux, E., and J. V. Laborde, physiological action of cupreine and its derivatives, ii, 223.
- Grimm, F., urobilin, ii, 429.

Grindley, H. S., and C. L. Jackson, derivatives of chloranil, i, 322.
 Grindley, H. S. See also Jackson.
 Griner, G., some cases of isomerism in the C_6 series, i, 237.
 — synthesis of erythritol, i, 450.
 Grittner, A., estimation of sulphur in coal, ii, 89.
 — qualitative separation of the barium group, ii, 92.
 Grossmann, J., estimation of nitrites, ii, 87.
 Grossmann, O. v., oxidation products of behenic acid, i, 305.
 Groves, E. W., chemical stimulation of nerves, ii, 221.
 Gruener, H., iodometric estimation of nitrates, ii, 550.
 — stability of standard solutions of tartar emetic, ii, 600.
 Gruener, H. W. See Gooch.
 Grützner, B. See Fischer, Poleck.
 Guareschi, I., synthesis of hydro-pyridine compounds, i, 484.
 Gucci, P., action of caustic alkalis on phthalide, i, 644.
 — derivatives of phenylenediamine, i, 638.
 Gucci, P. See also Cannizzaro.
 Günther, H. See Zincke.
 Guérin, G., and H. Thorion, ammonium magnesium urate, ii, 99.
 Guglielmo, G., vapour tensions of solutions of sulphur and phosphorus in carbon bisulphide, ii, 511.
 Guichard, estimation of starch, ii, 249.
 — polarimetric examination of gums, ii, 502.
 Guillot, rapid estimation of caffeine in tea and coffee, ii, 603.
 Guinard, L., resistance of goats to the action of morphine, ii, 335.
 Guntz, probable presence of iron carbonyl in coal gas, ii, 73.
 Gustavson, G., action of stannic chloride on halogen derivatives of methane, i, 121.
 Guye, P. A., determination of the molecular weight at the critical point, ii, 204.
 — malic acid derivatives, i, 500.
 — molecular dissymmetry, ii, 204.
 — product of asymmetry, ii, 561.
 — rotatory power of a substance belonging to an homologous series, ii, 561.
 Guye, P. A., and L. Chavanne, rotatory power of ethereal salts of valeric and glyceric series, ii, 561.
 Guyot, A. See Haller.
 Györy, S., volumetric estimation of arsenic and antimony, ii, 554.

H.

Haase, E., melting point determinations, ii, 357.
 Haase, H. See Freund.
 Haefcke, H., chemical constitution of hornblende, ii, 130.
 Haegeler, E., condensation products of amidophenols, i, 273.
 Häussermann, C., preparation of α -trinitrotoluene, i, 14.
 — sodium perchromate, ii, 471.
 Hagemann, C. T. L., action of methylenic iodide on ethylic acetoacetate, i, 393.
 — new extraction apparatus, ii, 567.
 Hahn, O. See Lippmann.
 Haig, A., physiological action of uric acid ii, 585.
 Haldane, J., and J. L. Smith, toxic action of expired air, ii, 223.
 Hall, J. A., the nitro-derivatives of phenolphthalein, *Proc.*, 1893, 14.
 Haller, A., function of camphoric acid, i, 361.
 Haller, A., and E. Brancovici, alkylic benzeneazocyanacetates, i, 465.
 Haller, A., and A. Guyot, derivatives of phenolphthalein and fluorescein, i, 419.
 — diazoamidobenzene and para-diazotoluene benzoates, i, 331.
 Halliburton, W. D., proteids of kidney and liver cells, ii, 133.
 — proteids of nervous tissue, ii, 478.
 Halliburton, W. D., and T. G. Brodie, intravascular coagulation, ii, 541.
 Hallopeau, L. A., estimation of pepsone by precipitation with mercury peptonate, ii, 104.
 Hamberg, A., astochite and dahllite, ii, 421.
 Hamburger, H. J., action of physiological saline solution on blood corpuscles, ii, 426.
 — influence of acids and alkalis on defibrinated blood, ii, 332.
 — influence of acids and alkalis on the determination of the osmotic pressure in relation to the red blood corpuscles, ii, 175.
 Hampe, W., simultaneous precipitation of copper and antimony by the electric current, ii, 72.
 Handy, J. O., rapid estimation of phosphorus in iron, steel, and ores, ii, 44.
 Hannay, J. B., analysis of pigments ground in oil, ii, 494.
 — metallurgy of lead, ii, 464.
 Hannay, J. B., and A. E. Leighton, the supposed saponification of linseed

- oil by Dutch white lead, *PROC.*, **1893**, 122.
- Hanriot and C. Richet, chloralose, a derivative of chloral, and its physiological properties, i, 247.
- Hantzsch, A., compounds containing a double linking between nitrogen and carbon, i, 409.
- hydrochlorides of stereoisomeric aldoximes, i, 411.
- stereochemistry of unsymmetrical hydrazones, i, 207.
- thiocyanacetone, i, 64.
- Hantzsch, A., and A. Miolati, anhydridation of oximido-acids, i, 574.
- — formation of inner anhydrides from ketoximic acids, i, 583.
- Hantzsch, A., and A. Werner, stereoisomerism of the benzhydroxamic acids, i, 710.
- Hardin, M. B., available phosphoric acid and the soluble potash in cotton seed meal, ii, 594.
- Harland, R. H., analysis of ground white lead, ii, 494.
- Harley, V., diabetic coma, ii, 543.
- obstructive jaundice, ii, 30.
- pancreatic diabetes, ii, 31.
- physiological action of sugar, ii, 584.
- Harnack, E., and J. Remertz, influence of chloral hydrate and amylen hydrate on metabolism, ii, 543.
- Harpe. See De la Harpe.
- Harries, C. D., action of ethylenic bromide on phenylhydrazine, i, 571.
- Harris, V. D., and W. J. Gow, pancreatic juice in different animals, ii, 22.
- Harrison, E. F. See Dunstan.
- Hartley, W. N., method of observing the spectra of easily volatile metals and their salts, and of separating their spectra from those of the alkaline earths, *TRANS.*, 138.
- observations on the origin of colour and on fluorescence, *TRANS.*, 243.
- physical character of the lines of the spark spectra of the elements, ii, 2.
- Hartley, W. N., and H. Ramage, manganese borate, its constitution and properties, *TRANS.*, 129.
- Hartmann, A. See Liebermann.
- Hartmann, C., and L. Gattermann, hydrolysis of phenolic ethers and of ethereal salts by means of aluminium chloride, i, 152.
- Hartmann, C., and V. Meyer, iod-oxybenzoic and iodosobenzoic acids, i, 577.
- Hartmann, G., derivatives of *d*-mannoheptonic acid, i, 148.
- Hartog, P. J., and W. E. Sims, thionyl bromide, *PROC.*, **1893**, 10.
- Haselhoff, manufacture and composition of linseed cake and meal, ii, 38.
- Hassreidter, V. See Prost.
- Hausdörfer, A. See Bischoff.
- Hausser, J., cryoscopic studies in the benzene series, i, 270.
- Hausser, J., and P. T. Muller, decomposition of diazo-compounds, i, 81.
- Hawkins, E. M. See Meldola.
- Haworth, E., and H. W. Perkin, jun., synthesis of pentamethylenecarboxylic acid, hexamethylenecarboxylic acid, and azelaic acid, i, 694.
- Headen, W. P., alloys of iron and tin, ii, 211.
- kehoelite, a new phosphate from S. Dakota, ii, 537.
- stannite from the Black Hills, Dakota, ii, 325.
- tungstous oxide associated with columbous oxide, ii, 531.
- Hebebrand, A., changes in mouldy bread, ii, 545.
- Heberdey, P. P., crystallised slags from Raibl, ii, 129.
- Hébert, A., fermentation of manure, ii, 182.
- Heerlein, W., influence of caffeine and coffee distillate on metabolism, ii, 329.
- Hehner, O., estimation of oleic acid, ii, 251.
- Heide. See Vander Heide.
- Heiler, O. See Fischer.
- Helbing, H., and F. W. Passmore, detection of foreign fat in wool fat, ii, 351.
- Held, A., condensation of alkyl aceto-cyanacetates, i, 456.
- Helff, A., sulphides of phosphorus, ii, 569.
- Helme, T. A., foetal urine, ii, 428.
- Helmolt, H. v., double fluorides, ii, 373.
- Hemmelmayer, F. v., meconinemethyl phenyl ketone, i, 181.
- Hemmelmayer, F. v. See also Goldschmiedt.
- Hempel, W., estimation of sulphur in coals and organic substances, ii, 187.
- use of sodium peroxide in analysis, ii, 387.
- Hempel. See Alberti.
- Hemptinne. See De Hemptinne.
- Henderson, J. B. See Dittmar.
- Hendrixson, W. S. See Hill.
- Henke, F. See Erdmann.
- Henrich, F. See Jacobson.

- Henriques, P., analysis of rubber goods, ii, 399.
- derivatives of 1:4-amidonaphthalene, i, 39.
- estimation of copper by Volhard's thiocyanate method, ii, 345.
- Henry, C., phosphorescent zinc sulphide, ii, 72.
- phosphorescent zinc sulphide as a photometric standard, ii, 202.
- Henry, P., and H. v. Pechmann, action of nitrous acid on ethylic acetonedicarboxylate, i, 397.
- Hentzschel, W., adipin ketone from wood oil, i, 556.
- Hentzschel, W., and J. Wislicenus, adipin ketone, i, 555.
- pentamethylenic alcohol and its derivatives, i, 556.
- Hepp, E. See Fischer.
- Herbert, L. See Féréc.
- Hermens, R. See Michaelis.
- Herroun, E. F., electromotive forces of gold and of platinum cells, ii, 149.
- Herschmann, P., action of sulphuric acid on the pinacone of methyl ethyl ketone, i, 547.
- Herty, C. H., mixed double haloïds of lead and potassium, ii, 278, 465.
- Herz, F. J., amyloid, a component of milk and dairy products, i, 447.
- Herzberg, W., detection of resin in the sizing of paper, ii, 148.
- Herzfelder, A. D., substitution in the fatty series, i, 449.
- Herzig, J., methylbrazilin, i, 426.
- Herzig, J., and T. v. Smoluchowski, quercetin derivatives, i, 413.
- Hess, W., analysis of bone-meal, fish guano, and similar phosphates, and nitrogenous manures, ii, 389.
- Hesse, O., carotene, ii, 33.
- cinchonine, i, 677.
- coca leaves, i, 57.
- flowers of *Tagetes glandulifera*, i, 623.
- hydrocoton and its derivatives, i, 718.
- hyoscyne and oscine, i, 679.
- melting point of cocaine hydrochloride, i, 738.
- quinine, cinchonidine, and cinchonine, i, 676.
- Heumann, K., and C. Bachofen, behaviour of indigo when heated with alkalis, i, 270.
- Heusler, F. See Lorenz.
- Heut, G., conine and nicotine, ii, 607.
- Hewitt, J. T., chlorinated phenylhydrazines. Part II, TRANS., 868.
- citraconfluoresceïn. Part II, TRANS., 677.
- Hewlett, R. T., fractional heat coagulation of proteïds, i, 59.
- lactoglobulin, ii, 134.
- Higley, G. O. See Freer.
- Hildebrandt, H., hydrolytic ferments, ii, 329.
- nutritive value of albumoses, ii, 539.
- Hilgard, E. W., estimation of potassium, ii, 300.
- formation of alkali carbonates in nature, ii, 165.
- Hill, H. B., and W. S. Hendrixson, chlorosulphopyromucic acids, i, 313.
- Hill, H. B., and W. L. Jennings, methylfurfuraldehyde and methylpyromucic acid, i, 311.
- Hill, R. T., hæmatite and martite iron ores in Mexico, ii, 325.
- Hillebrand, W. F., further example of the isomorphism of thorium and uranium dioxides, ii, 378.
- preparation and sp. gr. of uranium dioxides, ii, 378.
- zinc-bearing spring waters from Missouri, ii, 81.
- Hiller-Bombien, O., geoffroya barks, i, 182.
- Hills, J. L. See Cooke.
- Hiltner, L. See Nobbe.
- Hinman, B. C., volumetric estimation of zinc, ii, 303.
- Hinrichs, G., critical examination of the fundamental determinations of Stas on potassium chlorate, ii, 163.
- determination of the atomic weight by the method of limit, ii, 316.
- general method for the calculation of the atomic weight from the data of a chemical analysis, ii, 317.
- mechanical comparison between the cyanogen radicle and the halo-gens, i, 1.
- specific heat of the atoms and their mechanical constitution, ii, 59.
- Stas's determinations of the atomic weight of lead, ii, 277.
- Hinsberg, O., benzenesulphonamides, i, 168.
- Hirsch, R., β -hydroxynaphthoic acid (m. p. 216°), i, 476.
- Hirschfeld, F., proteïd in diet, ii, 540.
- Hirschsohn, E., detection of cineole in ethereal oils, ii, 395.
- occurrence of bornylic acetate in the ethereal oils of *Abies sibirica* and *Abies pectinata*, i, 224.
- Hittorf, W., electromotive force of galvanic combinations, ii, 150.
- Hjelt, E., anhydride formation in the case of substituted succinic acids, i, 693.

- Hjelt, E., relative velocity of lactone formation in the case of bibasic γ -hydroxy-acids, i, 71.
- Hobbs, W. H., rose-coloured lime and alumina-bearing talc, ii, 538.
- Hodgkinson, W. R., a magnesium compound of diphenyl, *Proc.*, **1893**, 80.
- Hodgkinson, W. R., and A. H. Coote, action of phenylhydrazine on mono- and di-carboxylic acids at elevated temperatures, *Proc.*, **1892**, 219.
- Hodgkinson, W. R., and L. Limpach, on some new bases. Part II. Methoxyamidodimethylbenzene (1:2:4:6) and its derivatives, *Trans.*, 104.
- some relations between constitution and physical constants in the case of benzenoid amines, *Proc.*, **1893**, 41.
- Hodgkinson, W. R., and C. C. Trench, action of ammonia on sulphates, ii, 118.
- Hodgkinson, W. R., and J. Young, action of sulphurous anhydride on oxy-salts, ii, 115.
- Höland, R., estimation of sulphur in organic liquids, ii, 433.
- Hönig, M., and G. Spitz, analysis of mixtures of saponifiable and unsaponifiable fats, ii, 102.
- Hoerlin, J. See Koenigs.
- Hoff, J. See Weidel.
- Hoffmann, K. See Claus.
- Hofmann, K., colouring matters of the triphenylmethane series, i, 472.
- Hofmann, K., and G. Krüss, action of charcoal on solutions of the salts of the rare earths, ii, 374.
- holmium oxide, ii, 466.
- terbia, ii, 466.
- Hofmann, K. B., specific gravity of titanium, ii, 379.
- Hofmeister. See Ellenberger.
- Hogg, T. W., analysis of ferrosilicon and siliceous spiegel, ii, 304.
- Hohmann, C. See Nernst.
- Holleman, A. F., action of amines and ammonia on the dinitrosacyls, i, 205.
- estimation of calcium in basic slag, ii, 241.
- estimation of potassium by the Lindo-Gladding process, ii, 344.
- solubility of insoluble salts, ii, 519.
- structure of fulminates: dibromonitracetonitrile, i, 494.
- volumetric estimation of phosphoric acid, ii, 490.
- Holm, J. C. See Jörgensen.
- Holt, A., and J. Baruch, action of sulphuric acid on behenolic acid, i, 393.
- Hoogewerff, S., and W. A. Van Dorp, ethylic hydrogen camphorate, i, 599.
- orthocyanobenzoic acid, i, 268.
- substituted iso-imides of camphoric acid, i, 599.
- Hooker, S. C., the constitution of lapachol and its derivatives. Part II. The azines of the lapachol group, *Trans.*, 1376.
- the conversion of para- into orthoquinone derivatives, *Proc.*, **1893**, 13.
- Hooker, S. C., and A. D. Gray, dibromo- β -lapachone, its preparation and reactions, *Trans.*, 434.
- Hopkins, C. G. See Orndorff.
- Hopkins, F. G., estimation of uric acid, ii, 395.
- Hoppe, E. See Weidel.
- Hoppe-Seyler, F. See Duncan.
- Horbaczewski, J. See Kossel.
- Hosaeus, H., action of β -naphthol on formaldehyde, i, 100.
- β -hydroxynaphthoic acid, i, 355.
- lactone from formaldehyde and pyruvic acid, i, 628.
- pentaglycerol, i, 617.
- Hote. See L'Hote.
- Hotter, E. See Nobbe.
- Howell, E. E., Mt. Joy meteorite, ii, 216.
- Howell, F. J. See Bischler.
- Howell, W. H., Miss E. Cooke, and R. G. Eaton, action of inorganic salts on the heart, ii, 221.
- Howitz, H. See Claus.
- Huber, A. See Arthus.
- Hüfner, G., dissociation of oxyhæmoglobin in aqueous solution, i, 616.
- Hughes, R. E., properties of dry hydrogen sulphide, ii, 164.
- water as a catalyst, ii, 462.
- Hughes, R. E., and F. R. L. Wilson, action of dried hydrogen chloride on Iceland spar, ii, 208.
- Hugouenq, L., filtration of casein solutions through porcelain, i, 540.
- Hummel, J. J. See Perkin.
- Hundeshagen, F., Eschka's process for the estimation of sulphur, ii, 239.
- Huppert, glycogen in blood and pus, ii, 541.
- occurrence of glycogen in blood, ii, 176.
- specific rotatory power of glycogen, i, 619.
- Hussak, E., brazilite, ii, 286.
- zeolites from Brazil, ii, 422.

- Hutchins, C. C., absorption of radiant heat by alum, ii, 5.
 Hutchinson, A., and W. Pollard, note on lead tetracetate, TRANS., 1136.

I.

- Igelström, L. J., chondrostibian, a new Swedish mineral, ii, 577.
 ——— friedelite from the Sjö mine, Sweden, ii, 130.
 ——— melanostibian, a new Swedish mineral, ii, 382.
 Ikuta, M., metamidophenol and its derivatives, i, 265.
 Inoko, Y., hæmoglobin which contains phosphorus, i, 616.
 Irisawa, T., lactic acid in blood and urine, ii, 136.
 Irtzer, S. See Strache.

J.

- Jackson, C. L., and H. S. Grindley, hemiacetals derived from substituted chloranils, i, 563.
 Jackson, C. L. See also Grindley.
 Jacobi, F., and C. Stoehr, a homologue of coniine, i, 442.
 Jacobi, H., birotation and hydrazone formation of some sugars, i, 125.
 Jacobi, W. See Michaelis.
 Jacobson, P., reduction products of azo-compounds, i, 327.
 Jacobson, P., F. C. Fertsch, and W. Fischer, reduction products of azo-compounds, i, 327.
 Jacobson, P., F. Henrich, and J. Klein, reduction products of azo-compounds, i, 327.
 Jäger, W., purification of mercury, ii, 322.
 Jaffé, B., laboratory apparatus for distillations in superheated steam, ii, 163.
 Jaffé, M., dibenzamide and tribenzamide, i, 29.
 Jahn, H., heat of vaporisation of organic compounds, ii, 445.
 Jahn, H. See also Landolt.
 Jahns, E., occurrence of betaine and choline in wormseed (*Artemisia gallica*), ii, 485.
 Jannasch, P., separation of lead from silver in ammoniacal solution by means of chromic acid, ii, 493.
 ——— separation of metals in alkaline solution by hydrogen peroxide, ii, 492.

- Jannasch, P., and K. Aschoff, direct quantitative separation of chlorine and iodine, ii, 183.
 ——— new direct separation of chlorine, bromine, and iodine, ii, 295.
 ——— separation of iodine, bromine, and chlorine. Estimation of bromine in mineral waters and mother liquors, ii, 595.
 Jannasch, P., and J. Mai, quantitative separations in presence of hydroxylamine, ii, 500.
 Jannasch, P., and W. Remmler, quantitative separation of the metals of the hydrogen sulphide group by means of bromine vapour, ii, 437.
 Jansen, H. See Dupont.
 Japp, F. R., and F. Klingemann, reduction of α -diketones, TRANS., 770.
 Japp, F. R., and T. S. Murray, synthesis of oxazoles from benzoin and nitriles, TRANS., 469.
 Jaubert, G. F., 1:1'-naphthalic acid and its derivatives, i, 477.
 Jaumann, G., attempt to found a chemical theory on a basis of physical comparison, ii, 10.
 Jean, F., analysis of impure galena: estimation of copper and zinc, ii, 493.
 ——— estimation of manganese in minerals and in alloys, ii, 498.
 ——— volumetric estimation of copper, iron, antimony, and zinc in zinc powder, ii, 492.
 Jean, F., and Trillat, estimation of potassium, ii, 46.
 Jedlicka, K., action of ethylenediamine on nitrophenols and the corresponding halogen derivatives, i, 699.
 ——— derivatives of paratertiarybutylphenol, i, 636.
 Jennings, W. L. See Fisher, Hill.
 Jensen, A. See Wislicenus.
 Jentys, S., influence of vegetation on the pressure of carbonic anhydride in the air of soils, ii, 341.
 Jesurin, J. A., action of phosphorus pentachloride on orthobenzoic-sulphinide, i, 715.
 Joannis, A., action of carbonic oxide on sodammonium and on potassammonium, ii, 520.
 ——— action of oxygen on sodammonium and potassammonium, ii, 462.
 ——— fusion of calcium carbonate, ii, 117, 167.
 ——— molecular weights of sodammonium and potassammonium, ii, 115.
 Jörgensen, A., and J. C. Holm, Effront's method for the purification

- and preservation of yeast by means of hydrofluoric acid, ii, 481.
- Johnson, E. S. See Witt.
- Johnson, G. S., organic bases in the juice of flesh, i, 55.
- source of error in the ultimate analysis of organic substances, ii, 306.
- Jolinson, S. W., analyses of tobacco stalks when cut and after curing, ii, 592.
- chemical changes in tobacco during fermentation, ii, 592.
- Johnston, W. R. See Wells.
- Jolles, A. F., estimation of phosphoric acid in basic slag, ii, 88.
- Joly, A., ammoniacal derivatives of ruthenium chloride, ii, 172.
- physical properties of fused ruthenium, ii, 285.
- Joly, A., and E. Leidié, atomic weight of palladium, ii, 284.
- Joly, A., and M. Vézes, osmium, ii, 324.
- Jones, A., electrical calamine from Wythe Co., Virginia, ii, 286.
- Jones, E. L., chlorosis, ii, 541.
- Jones, H. C., freezing points of very dilute solutions, ii, 263, 366, 447.
- the freezing points of dilute solutions of sodium chloride, ii, 447.
- Jones, L. M. See Thorpe.
- Jowett, H. A. D. See Dunstan.
- Jüptner, H. v., estimation of aluminium in ferroaluminium, ii, 391.
- Jürgens, B. H. See Van Deventer.
- Juillard, P., indigotintrisulphonic and indigotintetrasulphonic acids, i, 348.
- Turkey-red oil, i, 455.
- Jukovsky, M., oxidation of brassidic acid, i, 550.
- Jukovsky, S., octonaphthylene and octonaphtheneic alcohol, i, 420.
- Jumeau, P. L., estimation of ammonium thiocyanate in nitrogenous manures, ii, 347.
- estimation of thiocyanic, hydrocyanic, and hydrochloric acids, ii, 503.
- Jungfleisch, E., and E. Leger, cinchonidine, i, 679.
- Junghahn, A., and A. Reissert, action of paratoluidine on dibromosuccinic acid. New derivatives of dianilidosuccinic acid, i, 565.
- Junk, A. See Fischer.

K.

- Kablukoff, I., avidity of acids in aqueo-alcoholic solutions, ii, 157.
- conductivity of electrolytes in various solvents, ii, 151.
- vapour pressures of aqueo-alcoholic solutions of salts, ii, 154.
- Kablukoff, I., and A. Tsakoni (Zacconi), rate of sugar inversion in aqueo-alcoholic solutions, ii, 160.
- Kablukoff, I. See Louguinine.
- Kaehler, M., new drying oven, ii, 162.
- Kalb, G. See Pfeiffer.
- Kalecsinszky, A. v., continuous gas evolution apparatus, ii, 65.
- Kalman, W. See Gläser.
- Kanonnikoff, I. I., rotatory power of sugars, i, 186.
- Karplus, J. P., production of hydrogen sulphide and methyl mercaptan by a bacterium, ii, 335.
- Karslake, W. J., volumetric estimation of cobalt, ii, 194.
- Karsten, W., condensation of cinnamic acid with hydrocarbons, i, 513.
- Kastle, J. H., decomposition of silver chloracetate, ii, 266.
- Kastle, J. H., and B. C. Keiser, decomposition of chloracetates and bromacetates, i, 624.
- Kauffmann, H. See Auwers.
- Kayser, H., and C. Runge, spectra of aluminium, indium, and thallium, ii, 313.
- ultra-red spectra of the alkalis, ii, 313.
- Kebler, L. F., detection of chlorine, bromine, and iodine, ii, 343.
- Kehrer, E. A., and W. Kleberg, β -furfurallevulinic acid: a new synthesis of coumarone derivatives, i, 254.
- Kehrmann, F., complex inorganic acids, ii, 282, 378, 574.
- phospholuteogunistic acid, ii, 472.
- Kehrmann, F., and J. Messinger, alkyl orthodiamines, i, 199.
- oxidation products of alkyl derivatives of orthodiamines, i, 324.
- Kehrmann, F., and N. Pickersgill, some new complex oxalates, i, 552.
- Keiser, B. C. See Kastle.
- Keller, C. C., estimation of emetine in ipecacuanha root and its fluid extract, ii, 397.
- Keller, H. F., and E. F. Smith, atomic weight of palladium, ii, 73.
- Kemp, J. F., basic dyke thought to contain leucite, ii, 539.
- Kempinski, S., condensation of

- chlorobenzile with phenol and with mono- and di-methylaniline, i, 354.
- Kennigott, A., composition of helvine, ii, 422.
- formula of tourmaline, ii, 422.
- Kerkhoff, F. See Wallach.
- Kerp, W., action of ammonia on mesiten lactone and its derivatives, i, 554.
- Kessler, A., action of iodine on sodium propoxide, i, 383, 682.
- Keussler, E. v., estimation of nitrogen in nitrocellulose, ii, 184.
- Kijner, N., action of sodium on epichlorhydrin, i, 383.
- hydrogenisation of benzene, i, 150, 460.
- Kilian, H., derivatives of digitogenin, i, 665.
- preparation of pure digitenin, i, 665.
- Kilian, H., and H. Sanda, decomposition of galactose by calcium hydroxide, i, 546.
- Killgren, A. G., and L. F. Nilson, Swedish fodder plants, ii, 592.
- Kinch, E., *Lathyrus sylvestris*, ii, 547.
- Kinnear, J. B., estimation of solids and fat in milk, ii, 559.
- Kipping, F. S., a new synthesis of hydrindone, *Proc.*, 1892, 216.
- action of phosphoric anhydride on fatty acids, *TRANS.*, 452.
- formation of the ketone 2 : 6-dimethyl-1-ketohexaphane from dimethylpimelic acid, *Proc.*, 1893, 68.
- melting points of compounds of similar constitution, *TRANS.*, 465.
- the reduction products of dimethyldiacetylpentane, *TRANS.*, 111.
- Kipping, F. S., and W. J. Pope, genesis of new derivatives of camphor containing halogens by the action of heat on sulphonic chlorides, *Proc.*, 1893, 130.
- studies of the terpenes and allied compounds. The sulphonic derivatives of camphor, *TRANS.*, 548.
- Kipping, F. S. See also Armstrong.
- Kirchsen, T. See Wislicenus.
- Kistyakovsky, V., preparation of glycogen from the liver and muscles, i, 618.
- velocity of etherification, ii, 9.
- Klages, A., and E. Knoevenagel, formation of stilbene, i, 350.
- Klaudy, J., behaviour of aluminium towards mercuric salts, ii, 376.
- Kleberg, W. See Kehrler.
- Klebs, E., diamidopropionic acid, i, 686.
- Kleeberg, A., detection of wheat flour in rye flour, ii, 250.
- Klein, feeding experiments with sunflower cake on cows, ii, 328.
- Klein, J., action of phosphoric chloride on santonin, i, 425.
- derivatives of santonin, i, 425.
- santonin, i, 111, 112, 664.
- santoninoxime and santoninoximic acids, i, 363.
- Klein, J. See also Jacobson.
- Klepikoff, A. See Golenkin.
- Klimont, J., detection and estimation of neutral fats in mineral oil, ii, 604.
- Klingemann, F., condensation of benzaldehyde with deoxybenzoin, i, 353.
- condensation of deoxybenzoin with aldehydes and ketones, i, 589.
- diphenylacetic acid, i, 590.
- method for the simultaneous estimation of carbon and nitrogen in organic compounds, ii, 501.
- new nitrogenous organic acid, i, 602.
- note on acetanhydrocitric acid, *TRANS.*, 699.
- transmission of alcohol to milk, ii, 219.
- Klingemann, F. See also Japp.
- Klinger, A., and A. Bujard, estimation of citric acid in wine, ii, 54.
- Klobb, T., action of heat on zinc permanganate, ii, 467.
- isomorphism amongst anhydrous alums, ii, 572.
- Klobbie, E. A. See Van Bemmel.
- Kloppel, E., iodoxy- and iodoso-derivatives of paratoluic acid, i, 581.
- Klug, F., and V. Olasavsky, effect of work on the excretion of phosphoric acid, ii, 583.
- Knight, F. C., volumetric estimation of lead, ii, 302.
- Knoevenagel, E., formation of cycloid compounds from 1 : 5-diketones : structural isomeride of camphor, i, 419.
- synthesis of phenols from ethylic acetoacetate, i, 697.
- Knoevenagel, E., and R. Weissgerber, benzylidenedeoxybenzoin, i, 353.
- stereoisomeric benzamarones, i, 352.
- Knoevenagel, E. See Klages.
- Knorr, L., the pyrazoline reaction, i, 229.
- Knorr, L., and P. Duden, isomerism of the diphenylpyrazoles and of the pyrazole derivatives from ethyl benzoylacetate and ethyl benzalacetate, i, 230.

- Knorr, L., and P. Duden, pyrazole derivatives of unsaturated acids and hydrazines, i, 229.
- Knorre, G. v., separation and estimation of pyrophosphoric and metaphosphoric acids, ii, 299.
- separation of nickel and cobalt by means of nitroso- β -naphthol, ii, 500.
- Knudsen, P., action of bromine on aldehydecollidine, i, 43.
- Kobert, R., saponins, i, 424.
- König, A., α -hydrindone and its derivatives, i, 586.
- Koenig, G. See Schmidt.
- Koenigs, W., oxidation products of apocinchene, i, 376.
- Koenigs, W., and A. Eppens, camphorone, i, 361.
- Koenigs, W., and J. Hoerlin, sulpho-camphylic acid, i, 363.
- Koenigs, W., and E. Wagstaffe, condensation of chloral and butylchloral with acetone and acetophenone, i, 302.
- Köster, A. See Beckmann.
- Kötz, A., derivatives of dichloroquinazolines, i, 372.
- Kohlrausch, F., solutions of sodium silicates, ii, 166.
- Kolk. See Schröder van der Kolk.
- Kolotoff, S., constitution of hydroxylamine, ii, 114.
- saline constituents of water from the Black Sea, ii, 326.
- Kondakoff, I., action of mineral acids on dimethylallene, i, 541.
- action of zinc chloride on fatty alcohols, i, 382.
- composition of commercial amylenes, i, 381.
- constitution of angelic and tiglic acids, i, 141.
- oxidation of β -chlorocrotonic acid, i, 549.
- synthesis in the fatty series by means of zinc chloride, i, 382.
- Koninck. See De Koninck.
- Konovaloff, D., electrical conductivity of mixtures, ii, 356.
- Konovaloff, M., derivatives of nononaphthene, i, 196.
- Kooij, D. M., decomposition of gaseous hydrogen phosphide, ii, 569.
- Kormilitzin, A., action of silver oxide on magnesium nitrate, ii, 12.
- Kosmann, B., dehydration of cupric hydroxide and its basic salts, ii, 374.
- minerals from Lower Silesia, ii, 173.
- separation of iron, aluminium, manganese, zinc, and calcium, ii, 600.
- Kossel, A., and F. Freytag, certain chemical constituents of the medulla of nerve, i, 234.
- Kossel, A., and J. Horbaczewski, nucleinic acid, i, 680.
- Kossler, A., estimation of hydrochloric acid in the contents of the stomach, ii, 86.
- Kossler, A., and E. Penny, volumetric estimation of phenol in urine, ii, 100.
- Kossovitch, P., fixation of nitrogen by plants, ii, 590.
- Kostanecki, S. v. See Dreher.
- Kottmayer, G., estimation of emetine in ipecacuanha root, ii, 560.
- Krakau, A. A., Meidinger's cells, ii, 355.
- Krapavin, S. See Zelinsky.
- Krauss, E., nutritive value of proteids, ii, 540.
- Krawczynski, S., titration apparatus with automatic zero adjustment, ii, 41.
- Krawkow, N. P., amyloid substance, i, 288.
- chitins, i, 615.
- influence of ligature of the bile duct on metabolism, ii, 329.
- Kreidl, I., estimation of uric acid, ii, 558.
- Kreis, H., modification of the Reichert-Meissl method, ii, 396.
- Kritschenko. See Petrenko-Kritschenko.
- Kromer, N., glucoside of *Ipomœa pandurata* (*Convolvulus pandurata*, L.), i, 482.
- glucosides of the Convolvulaceæ, i, 423.
- Kronberg, H., determination of the molecular weight from the rate of evaporation, ii, 261.
- Krückeberg, F., ethylic azobenzenecyanacetate, i, 210, 509.
- Krüger, M., constitution of hypoxanthine and adenine, i, 736.
- Krüger, T. R., ethereal hydrogen sulphates from secondary alcohols, i, 495.
- Krüss, G., action of aniline and aniline hydrochloride on the gadolinite earths, ii, 376.
- determination of equivalents by conversion of oxides into sulphates: separation of the gadolinite metals, ii, 283.
- electrolysis of solutions of the rare earths, ii, 284.
- erbia, ii, 376.
- formation of thiovanadates, ii, 379.
- Krüss, G., and H. Krüss, quantitative spectrum analysis, ii, 295.

Krüss, G., and A. Loose, approximate determination of the equivalent of earths by titration, ii, 465.
 ——— behaviour of the gadolinite earths with potassium chromate, ii, 375.
 Krüss, G., and H. Moraht, reaction between ferric salts and soluble thiocyanates, i, 185.
 Krüss, G., and F. W. Schmidt, action of chlorine and bromine on gold, ii, 474.
 ——— determination of the atomic weight of nickel, ii, 212.
 ——— double halogen compounds of gold, ii, 284.
 Krüss, G., and C. Volk, sulphur compounds of thorium, ii, 574.
 Krüss, G. See also Hofmann.
 Krug, W. H., gravimetric estimation of furfuralhydrazone, ii, 556.
 Kruse, H. See Wallach.
 Kühling, O., interaction of orth-amidotolylamine and alloxan derivatives, i, 324.
 Kühling, O. See also Liebermann.
 Kühne, W., albumoses and peptone, i, 233, 741.
 Kuenen, J. P., measurements of Van der Waals' surface for mixtures of carbonic anhydride and methylic chloride, ii, 260.
 Küster, F. See Zincke.
 Kulisch, P., chemical composition of apples and pears especially with regard to their utilisation for fruit wine, ii, 37.
 Kunkel, A. J., absorption of iron, ii, 23.
 Kunz, G. F., and E. Weinschenk, meteorite from Indian Valley township, Virginia, ii, 80.
 ——— meteorite from the Sierra de la Ternera, Chili, ii, 80.
 Kurbatoff, D., presence of linoleic acid in some animal fats, i, 392.
 Kuriloff, V., production of hydrogen peroxide in the electrolysis of aqueous sulphuric acid, ii, 108.
 ——— products of the dry distillation of birch bark, i, 131.
 Kurnakoff, N. S., influence of hydration on solubility, ii, 509.
 ——— specific heat of carbonic anhydride, ii, 5.
 Kutcheroff, M. G., action of mercury salts on unsaturated hydrocarbons and alcohols, i, 450.
 Kuthe, M. See Wallach.
 Kux, H., gas-volumetric estimation of organic acids and of iodic acid, ii, 307.

Kyle, J. J. J., vanadiferous lignite in the Argentine Republic, ii, 128.

L.

Laborde, J., volumetric estimation of mercury, ii, 495.
 Laborde, J. V. See Grimaux.
 Lachaud, M., and C. Lepierre, action of hydrogen ammonium sulphate on glass, ii, 280.
 ——— oxidation and sulphonation of organic compounds by ammonium hydrogen sulphate, i, 411.
 Ladenburg A., crystalline form of scopoline platinochloride, i, 739.
 ——— isoconine and the asymmetrical nitrogen atom, i, 442.
 ——— resolution of β -pipecoline into its optical isomerides, i, 427.
 ——— synthesis of oxypyridine and oxypiperidine bases, i, 426.
 Lafont, J. See Bouchardat.
 Lagodzinski, K. See Graebe.
 La Harpe. See De la Harpe.
 Lajoux, H., and A. Grandval, mercuric salicylates, i, 642.
 Lajoux, H. See also Grandval.
 Lampe, O. See Michaelis.
 Landau, S., mesitylene, i, 32.
 Landauer, J., the origin of blow-pipe analysis, ii, 342.
 Landolt, H., conservation of mass in chemical changes, ii, 452.
 ——— vapour pressures of fatty acids, ii, 446.
 Landolt, H., and H. Jahn, molecular refractive power of organic compounds for infinite wave-length, ii, 57.
 Landsteiner, K. See Bamberger.
 Langbein, H. See Stohmann.
 Lange, O., volume of blood corpuscles, ii, 332.
 Lapique, L., physiological action of iodides, ii, 222.
 ——— physiological action of iodine compounds, ii, 222.
 Lapique, L., and A. Malbec, action of strontium iodide on the circulation, ii, 222.
 Lapraik, W., absorption spectra of chromium compounds, ii, 313.
 Laquer. See Benno-Laquer.
 Laspeyres, H., beyrichite from Altenkirchen, ii, 18.
 ——— cobaltiferous and nickeliferous iron pyrites from Müsen, ii, 18.
 Lassar-Cohn, the acids of ox bile, ii, 220, 383.

- Laudenheimer, E. See Paal.
 Lauder, A. See Dobbie.
 Laurent, E. See Schloesing.
 Laurie, A. P., compound of gold and tin, ii, 74.
 Laves, E., analysis of butter, ii, 602.
 — detection and estimation of glucose by means of phenylhydrazine, ii, 555.
 Lea, M. C., dehydration of silver oxide, ii, 11.
 — disruption of silver haloïds by mechanical force, ii, 69.
 — nature of certain solutions, and a new means of investigating them, ii, 566.
 — silver, ii, 207.
 — silver chloride, ii, 208.
 — silver hemisulphate, ii, 115.
 Lebedeff, I., transformation of elaidic acid into oleic and isoleic acids, i, 550.
 Le Bel, dimorphism of dimethylamine platinochloride, i, 387.
 Le Bel. See also Combes.
 Le Bel, J. A., alteration of the sign of optical rotation, ii, 255.
 Le Boulenger, P. See Brochet.
 Le Chatelier, A., diopside from the Congo, ii, 421.
 Le Chatelier, H., dissociation of barium peroxide, ii, 71.
 — dissociation of calcium plumbate, ii, 524.
 — estimation of small quantities of combustible gas mixed with air, ii, 487.
 — fusion of calcium carbonate, ii, 117, 166.
 — heat of formation of arragonite, ii, 259.
 Leduc, A., densities and molecular volumes of chlorine and hydrogen chloride, ii, 410.
 — densities of certain gases and the composition of water, ii, 453.
 — density of carbonic oxide and the atomic weight of carbon, ii, 165.
 — density of nitric oxide, ii, 272.
 — density of sulphurous anhydride, ii, 516.
 — new system of atomic weights, partly based on the direct determination of the molecular weights, ii, 267.
 Leeuwen. See Van Leeuwen.
 Lefèvre, C., crystalline arsenates, ii, 273.
 Léger, E., benzoylcinchonine, i, 678.
 — estimation of benzoyl in organic compounds, ii, 395.
 — hydrogen bromide, ii, 114.
 — volumetric estimation of alkaloïds, ii, 199.
 Léger, E. See also Jungfleisch.
 Lehmann, C., F. Mueller, I. Munk, H. Senator, and N. Zuntz, physiology of starvation, ii, 477.
 Lehmann, V., action of benzoic chloride on ammonia, ii, 145.
 Leidie, E. See Joly.
 Leighton, A. E. See Hannay.
 Leins, H. See Brunner.
 Lellmann, E., and A. Görtz, coefficients of affinity of organic bases, ii, 407.
 Lellmann, E., and N. Mayer, intramolecular formation of the azo-group, i, 201.
 — some nitro- and amido-benzylated bases, i, 198.
 Lellmann, E., and J. Schliemann, coefficients of affinity of organic acids, ii, 407.
 Lemoine, G., decomposition of oxalic acid by ferric salts under the influence of heat, ii, 405.
 — ferric chloride and ferric oxalate solutions, ii, 405.
 Le Neve Foster, E., soda from the alkaline waters of Owen's Lake, ii, 18.
 Lengfeld, F., and E. O'Neill, Californian petroleum, i, 237.
 Lengfeld, F., and J. Stieglitz, nitrogen halogen compounds, i, 310, 631.
 Lenher, V. See Smith.
 Lenoble, E., a reaction of cupric salts, ii, 554.
 Lenormand, C., iron chlorobromide, ii, 377.
 Leo, H. See Friedheim.
 Leonardi, E. See Mazzara.
 Lepereq, G., action of alkali nitrites on alkyl salts of brominated fatty acids, i, 65.
 Lepierre, C., atomic weight of thallium, ii, 322.
 Lepierre, C. See also Lachaud.
 Leroy, J. A., derivatives of α -naphthylacetylene and of β -naphthylacetylene, i, 421.
 Lesage, P., rate of evaporation of solutions of sodium and potassium chlorides, ii, 64.
 Lescœur, H., dissociation of saline hydrates and analogous compounds, ii, 364.
 — purification of arsenical zinc, ii, 209.
 Lespieau, action of zinc on bromo-derivatives of tricarbon nuclei, i, 1.
 Lévy, L., titanium, i, 257.
 — alcoholic fermentation of Jerusalem artichokes with pure yeast, ii, 482.

- Lévy. See Magnus-Lévy.
 Lewinski, M. See Schröter.
 Lewkowitzsch, J., analysis of fats, ii, 310.
 — estimation of resins in soaps, ii, 609.
 L'Hôte, L., preparation of vanadyl trichloride: extraction of vanadium from its ores, ii, 17.
 Lidoff, A., solubility of the lead salts of stearic and palmitic acids in ether, i, 548.
 — the elaidin reaction, ii, 559.
 Liebermann, C., addition of sodium alkylloxides, i, 583.
 — coca leaves, i, 182.
 — new synthesis of allocinnamic acid, i, 513.
 — optically active cinnamic acid dibromides, i, 582.
 — specific rotatory power of the phenyldibromopropionic acids, i, 268.
 — theory of the formation of coloured compounds with mordants, i, 510.
 — thiophen of crystallisation, i, 406.
 Liebermann, C., and A. Bistrzycki, action of ammonia and hydrazine on opianic and phthalaldehydic acids, i, 371.
 Liebermann, C., and H. Finkbeiner, optically active cinnamic acid dichlorides, i, 415.
 Liebermann, C., and A. Hartmann, optically active cinnamic acid dibromides, i, 414, 582.
 Liebermann, C., and O. Kühling, hygrineoxime, i, 446.
 Liebermann, C., and H. Sachse, constitution of the truxillic acids, i, 418.
 Liebermann, L., chemistry of the kidney substance, ii, 27.
 — the phosphates of horse's urine, ii, 30.
 Liebermann, L., and S. Bugarszky, diffusion in aqueous solutions of mixed salts, ii, 565.
 Liebermann, L., and S. Székely, estimation of fat in milk, ii, 308.
 Likiernik, A. See Schulze.
 Lilienfeld, L., researches on blood, ii, 22.
 Lilienfeld, L., and A. Monti, microchemical localisation of phosphorus in the tissues, ii, 135.
 Lima. See Mancuso-Lima.
 Limpach, L. See Hodgkinson.
 Limpricht, H., nitrososulphonic acids, i, 168.
 Lindemann and Motteu, detection of alkaloids, "saccharin," and salicylic acid, ii, 606.
 Lindgren, W., and W. H. Melville, sodalite - syenite from Montana, ii, 538.
 Lindner, R., the two isomeric benzyl derivatives of nitroso- β -benzylhydroxylamine, i, 572.
 Lindström, G., brandite and friedelite, ii, 420.
 Linebarger, C. E., dissociation of salts into their ions by water of crystallisation, ii, 265.
 — existence of double salts in solution, ii, 450.
 — Friedel-Crafts reaction in the anthracene series, i, 358.
 — hydrates of manganous sulphate, ii, 417.
 — influence of the concentration of the ions on the intensity of the colour of solutions of salts in water, ii, 203.
 — molecular masses of dextrin and gum arabic as determined by their osmotic pressures, i, 7.
 — paranthracene, i, 357.
 — relations between the surface tensions of liquids and their chemical constitution, ii, 8.
 — solubility of triphenylmethane in benzene, i, 273.
 Ling, A. R., and J. L. Baker, halogen derivatives of quinone. Part III. Derivatives of quinhydrone, TRANS, 1314.
 Linge. See Van Linge.
 Linow, E. See Michaelis.
 Lintner, C. J., formation of dextrose from starch, i, 4.
 Lintner, C. J., and G. Düll, preparation of isomaltose, i, 5.
 Lippert, W., decomposition of ethers by hydrogen haloids, i, 620.
 Lippmann, E., and F. Fleissner, allocinchonine, ii, 738.
 Lippmann, E. O. v., an acid in beet leaves, ii, 85.
 — coniferin, i, 110.
 — dulcitol, i, 64.
 — sorbitol, i, 64.
 Lippmann, E. O. v., and O. Hahn, levulan, i, 63.
 List, O. See Meyer.
 Litthauer, S., substantive cotton dyes from diamidophenanthraquinone, i, 422.
 Liveing, G. D., and J. Dewar, spectra of the flames of some metallic compounds, ii, 401.
 — spectrum of liquid oxygen and refractive indices of liquid oxygen, nitrous oxide, and ethylene, ii, 201.

- Lobry de Bruyn, C. A., methyl and ethyl alcohol as solvents, i, 244.
 — preparation of orthodinitrobenzene, i, 256.
 Locke, F. S., action of sodium oxalate on voluntary muscle, ii, 480.
 Loczka, J., rock salt from Deésakna, ii, 575.
 Lodter, W. See Bamberger.
 Löw, E. See Engler.
 Loew, O., characterisation of sugars, i, 4.
 Loewy, A., action of fatiguing muscular work on the respiratory interchange, ii, 21.
 Löwy, R., tetramethoxydiphthalyl, i, 588.
 Long, J. H., American menthol, i, 223.
 — American oil of turpentine, i, 594.
 Longstaff, G. D., obituary notice of, TRANS., 751.
 Looft, E., constituents of wood oil, i, 558.
 Loomis, E. H., a more exact cryoscopic method, ii, 261.
 Loose, A. See Krüss.
 Lopes, S., detection of hydrocyanic acid, ii, 502.
 Lorenz, N. v., a source of error in the estimation of phosphoric acid by magnesia mixture, ii, 185.
 — behaviour of proteids to concentrated hydriodic acid, i, 379.
 Lorenz, R., estimation of carbon in steel, ii, 491.
 Lorenz, R., and F. Heusler, volatility of manganese at high temperatures, ii, 377.
 Lorenzen, J. See Bamberger.
 Lorimer, W. S., and E. F. Smith, determination of the atomic weight of cadmium, ii, 168.
 Lossen, W., dibromosuccinic acids, i, 142.
 — preparation of silver acetylide from acetylenedicarboxylic acid, i, 121.
 — stereoisomerism of the benzhydroxamic acids, i, 572.
 Louguinine, W., specific heat of erythritol and mannitol, ii, 258.
 Louguinine, W., and I. Kablukoff, heat developed by the combination of bromine with non-saturated compounds, ii, 444.
 Lovén, J. M., action of hydrogen sulphide on pyruvic acid, i, 308.
 Low, A. H., estimation of alkalis in silicates, ii, 436.
 — estimation of lead, ii, 437.
 — estimation of manganese in ores, ii, 438.
 Lowe, W. F., gravimetric estimation of zinc as sulphide, ii, 302.
 Low, W. H., estimation of free and combined alkali in soap, ii, 191.
 Lubavin, N., diastase, i, 744.
 — distribution of calcium and magnesium in nature, ii, 373.
 Lucion, M. See Spring.
 Luckow, C., action of potassium permanganate on sodium thiosulphate, ii, 164.
 — volumetric estimations and separations by means of potassium ferrocyanide and ferricyanide, ii, 242.
 Ludeking, C., and J. E. Starr, specific heat of liquid ammonia, ii, 258.
 Ludwig, E., detection of mercury in the organism, ii, 243.
 Ludwig, E. See also Tschermak.
 Lüdert, H., hexametaphosphates, ii, 569.
 Lüdy, F., gum-benzoïn from Siam, i, 666.
 — gum-benzoïn from Sumatra, i, 480.
 Lüttke, J., sensitive litmus indicator, ii, 294.
 Lumière, A., and A. Seyewetz, action of potassium permanganate on organic acids, i, 251.
 — action of sodium sulphite on salts of amidophenols, i, 568.
 Lunge, G., constitution of bleaching powder, ii, 277, 372.
 — estimation of sulphur in roasted pyrites, ii, 187.
 — improvements in gas-volumeters, ii, 41.
 Lunge, G., and F. Bachofen, specific gravity of bleaching powder solutions, ii, 488.
 Lunge, G., and L. Marchlewski, estimation of carbon in iron or steel, also of carbonic anhydride in aqueous solution, ii, 45.
 — influence of nitric peroxide on the specific gravity of nitric acid, ii, 66.
 Lunge, G., and E. Schmid, estimation of oxygen in lead, ii, 302.
 Luxembourg, K. See Michaelis.
 Luzzi, W., graphite, ii, 414.
 — graphite and graphitite, ii, 320.

M.

- Macallum, A. B., demonstration of the presence of iron in chromatin by micro-chemical means, ii, 24.
 MacElroy, K. P., and W. D. Bigelow, detection of strontium in presence of calcium, ii, 92.

- MacElroy, K. P., and W. H. Krug, specific gravity of aqueous solutions of acetone, i, 7.
- Macfarlane, W., and A. Wilson, rapid estimation of phosphorus in iron and steel, ii, 596.
- MacGregor, J. See Frankland.
- Mach, H., abietic acid, i, 582.
- Maclaurin, R. C., the dissolution of gold in a solution of potassium cyanide, *TRANS.*, 724.
- Macnair, D. S., a quantitative method of separating iodine from chlorine and bromine, *TRANS.*, 1051.
- Maercker, M., effect of phosphatic manuring on the amount of sugar and the value of beet-root, ii, 228.
- the citrate and molybdate methods for the estimation of soluble phosphoric acid, ii, 237.
- Mager, H., constitution of suberone and of the closed chain ketones of pimelic and azelaic acids, i, 557.
- Maggiara, A., composition of over-ripe cheese, ii, 29.
- Magnanini, G., action of acetylacetone on bromacetone in presence of sodium ethoxide, i, 623.
- influence of boric acid on the electrical conductivity of aqueous solutions of organic acids, ii, 506.
- the colour of the ions, ii, 510.
- Magnanini, G., and M. Scheidt, action of benzaldehyde on the ammoniacal derivatives of dehydrodiacetyllevulinic acid, i, 177.
- Magnus-Levy, A., action of formaldehyde on benzenesulphonamide, i, 714.
- digestibility of milk and bread, ii, 580.
- Magnus-Levy, A. See also Zuntz.
- Malilke, A., mercurial thermometers to register up to 550°, ii, 443.
- Mahon, R. W., modification of the stannous chloride method of titrating iron, ii, 499.
- Mai, J. See Jannasch.
- Maisch, C. C. See Michael.
- Majert, W., and A. Schmidt, piperazine, *PROC.*, 1893. 35.
- Makins, G. H., obituary notice of, *TRANS.*, 754.
- Malbec, A. See Lapicque.
- Malbot, H., and A. Malbot, action of secondary caprylic iodide on trimethylamine, i, 7.
- Mallard, E., and G. Friedel, melanophlogite, ii, 382.
- Mallet, J. W., Jean Servais Stas, and the measurement of the relative masses of the atoms of the chemical elements, *TRANS.*, 1.
- Mallèvre, A., influence of acetic acid on gaseous metabolism, ii, 21.
- Mamert. See Thomas-Mamert.
- Manasse, O., conversion of nitroso-camphor into camphoric imide: camphordioximes, i, 277.
- Manasse, O. See also Claisen.
- Manby, C. E., estimation of phosphorus, ii, 89.
- Mancuso-Lima, G., estimation of phosphoric anhydride in basic slag, ii, 238.
- Mangold, C., analysis of sealing wax, ii, 148.
- estimation of glycerol, ii, 51.
- Maquenne, L., glyoxalinedicarboxylic acid, i, 281.
- identity of the hydrocarbon C_7H_{14} derived from perseitol and from resin oil with heptanaphthene, i, 635.
- lime-tree honey, i, 618.
- preparation of acetylene, i, 62.
- preparation of tetraiodoethylene, i, 449.
- Mar, F. W. estimation of barium in the presence of calcium and magnesium, ii, 47.
- Marais, J. T. See Thiele.
- Marcet, W., absorption of oxygen and formation of carbonic anhydride in human respiration, ii, 20.
- exercise and respiratory exchange, ii, 579.
- Marchal, C., and J. Wiernik, separation of iron, aluminium, and chromium, ii, 49.
- Marchetti, G., cryoscopic behaviour of aqueous solutions of chromium chlorides, ii, 122.
- pyrazole derivatives, i, 179.
- pyrazole-3 : 5-dicarboxylic acid, i, 674.
- reduction of 1 : 3 : 5-phenyldimethylpyrazole, i, 178.
- reduction of 1 : 4 : 5-phenylmethylpyrazole, and 1 : 3 : 5-phenyldimethylpyrazole, i, 177.
- reduction of substituted 1-phenylpyrazoles, i, 673.
- Marchetti, G. See also Balbiano.
- Marchis, L., mixtures of ether and water, ii, 264.
- Marchlewski, L., gas-volumetric estimation of iodine, ii, 144.
- methods of estimating sulphur, ii, 551.
- nitrous acid in nitric acid, ii, 206.
- Marchlewski, L., rate of diffusion of dextro- and lævo-rotatory tartaric acid, ii, 316.

- Marchlewski, L., the constitution of rubiadinglucoside and rubiadin, *TRANS.*, 1137.
- the existence of nitrous acid in aqueous solution, ii, 569.
- Marchlewski, L., and J. Sachs, new formation of basic sulphates of copper, ii, 169.
- — Roussin's salt, ii, 211.
- Marchlewski, L. See also Lunge, Schunck.
- Marchlewski, L. P., methods of estimating the sulphur in sulphides, ii, 186.
- Marckwald, W., amido- and nitro-derivatives of pyridine, i, 727.
- stereoisomeric thiosemicarbazides, i, 26.
- Marckwald, W., and A. Ellinger, a derivative of amidoacetal, i, 213.
- — glycolaldehydes, i, 7.
- Marckwald, W., and P. Wolff, diphenylanilguanidine, i, 25.
- Marckwald, W., and others, constitution of cycloid systems, i, 603.
- Marckwald, W. See also Wohl.
- Marcusson, J. See Meyer.
- Markovnikoff, V., action of bromine on closed-chain hydrocarbons in presence of aluminium bromide, i, 13.
- heptonaphthenic (hexahydrobenzoic) acid, i, 93.
- suberene, i, 13.
- Markovnikoff, V., and A. Reformatsky, Bulgarian (Turkish) oil of roses, i, 662.
- Marouby, detection of adulteration in wines, ii, 501.
- Marpurgo, J., detection of nitrobenzene, ii, 306.
- Marsh, J. E., and J. A. Gardner, researches on the terpenes. Part III. The action of phosphorus pentachloride on camphene, *PROC.*, 1893, 163.
- Marshall, W. See Purdie.
- Martelli, D., estimation of phosphoric anhydride in basic slag, ii, 238.
- Martin, E. See Grehant.
- Martin. See De Saint Martin.
- Martius, F., occurrence of hydrochloric acid in the stomach, ii, 540.
- Mason, A. T., piazine (pyrazine) derivatives. Part II. *TRANS.*, 1284.
- preparation of mono-, di-, and tri-benzylamine, *TRANS.*, 1311.
- Mason, A. T., and L. A. Dryfoos, condensation products from ethylenediamine, and derivatives of acetoacetic acid, *TRANS.*, 1310.
- — piazine derivatives. Part III, *TRANS.*, 1293.
- Mason, A. T., and G. R. Winder, synthesis of piazine derivatives: inter-
- action of benzylamines and phenacyl bromide, *TRANS.*, 1355.
- Massau, C. See Clans.
- Masson, active principles of bryony root, i, 424.
- Matignon, C., general results of the thermochemical study of the ureides, ii, 362.
- dehydroxyamalic acid, i, 405.
- hydric acid, i, 149, 405.
- thermochemical investigation of polybasic ureides and of uric acid, ii, 360.
- thermochemical investigation of ureides derived from acids containing 2 carbon atoms, ii, 358.
- Matignon. See Berthelot.
- Matthey, E., metallurgy of bismuth, ii, 534.
- Maull, C. See Rupe.
- Maumené, E., ammonium chromates, ii, 17.
- preparation of mucic acid from gum arabic, i, 628.
- Mauro, F., fluoroxymolybdates: the non-existence of cuprous fluoride, ii, 124.
- Mauthner, J., physiological action of asparagine, ii, 27.
- Maxwell, W., phosphorus and the lecithins, ii, 289.
- Mayer, A., influence of sugar on the constitution of milk fat, ii, 27.
- melting point and composition of butter from cows variously fed, ii, 28.
- production of albumin in plants, ii, 224.
- Mayer, F. See Witt.
- Mayer, N. See Lellmann.
- Mazzara, G., unsymmetrical dibenzylthiocarbamide, i, 411.
- Mazzara, G., and E. Leonardi, acetylnitrocarbazole, i, 213.
- — carbazole, i, 349.
- Meerburg, J. H., permeability of precipitated membranes, ii, 367.
- Meimberg, F. See Bamberger.
- Meineke, C., cyanogen iodide and sodium thiosulphate, ii, 246.
- detection of cyanogen in iodine, ii, 246.
- estimation of cyanogen in iodine, ii, 246.
- preparation of pure iodine, ii, 204.
- Meister, H., methahydroxyvitic acid, i, 252.
- Meldola, R., the action of nitrous acid on 1-amido-2-naphthol, *PROC.*, 1892, 218.
- Meldola, R., and F. B. Burls, azo-compounds of the ortho-series, *TRANS.*, 930.

- Meldola, R., and F. B. Burls, note on a meta-azo-compound, *PROC.*, 1893, 126.
- Meldola, R., and M. O. Forster, the preparation of dinitronaphthylamine [$\text{NH}_2 : (\text{NO}_2)_2 = 1 : 2 : 4$] from its acetyl and valeryl derivatives, *PROC.*, 1893, 7.
- Meldola, R., and E. M. Hawkins, azo-compounds of the ortho-series, *TRANS.*, 923.
- Meldola, R., and F. W. Streatfeild, some peri-derivatives of naphthalene, *TRANS.*, 1054.
- Melikoff, P., analysis of the Wawilowka meteorite, ii, 579.
- Melikoff, P., and C. Schwalbe, meteorite of Grossliebenthal, ii, 216.
- Melville, W. H., josephinite, a new nickel-iron, ii, 75.
- Melville, W. H. See also Lindgren.
- Menschutkin, N., influence of the constitution of the alcohols on the velocity of etherification, ii, 158.
- Merck, E., adonite, i, 481.
- alkaloids from *Corydalis cava*, i, 492.
- champacol, a new camphor, i, 480.
- crystallised veratrine, i, 490.
- hydrastinine hydrogen tartrate, i, 491.
- hyoscyamine, i, 491.
- pseudohyoscyamine, i, 491.
- relation between atropine, apotropine, and belladonnine, i, 491.
- Merling, G., action of hydrogen peroxide on piperidine bases, i, 113.
- Meslans, M., action of anhydrous hydrogen fluoride on alcohols, i, 186.
- estimation of fluorine in combustible gases, ii, 488.
- Messinger, J. See Kehrman.
- Metcalf, W. V., action of alcohols on paradiazotoluenemetasulphonic acid, i, 585.
- Metzner, R. See Ditte.
- Meunier, S., meteoric iron from Augustinowka (Russia), ii, 423.
- meteoric iron from Hassi Jekna, Algeria, ii, 79.
- two Turkish meteorites, ii, 578.
- Meyenburg, F. v., synthesis of α -phenylindoxazen, i, 587.
- Meyer, L., a small air thermometer for laboratory use, ii, 357.
- Köhnlein's method of preparing paraffins: properties of propane, i, 681.
- lectures on inorganic chemistry arranged in accordance with the natural system of the elements, ii, 408.
- Meyer, L., magnesium diphenyl, *PROC.*, 1893, 111.
- spectroscopical investigation of salts of aromatic bases, i, 464.
- Meyer, L., jun., phenazone, i, 733.
- separation of phenyldibromopropionic acid into its optically active modifications, i, 93.
- Meyer, P., bromination of phenylhydrazine, i, 155.
- Meyer, R., compounds of phthalic acid with phenols, i, 275.
- Meyer, R., and E. Saul, action of phenylhydrazine on lactones, i, 473.
- the fluorescein group, i, 220.
- xanthidrol, i, 471.
- Meyer, R., J. See Friedheim.
- Meyer, V., iodoso-compounds, i, 713.
- substitution in aliphatic acids, i, 64.
- temperature of explosion of gaseous mixtures, ii, 258.
- Meyer, V., O. List, J. Marcusson, and W. A. Bone, indoxazen derivatives, i, 469.
- Meyer, V., and P. Petrenko-Kritschenko, action of bromine on ethylic chloride and certain butane derivatives, i, 62.
- Meyer, V. See also Askenasy, Bodenstein, Cathcart, Freyer, Hartmann.
- Meyerhoffer, W., a new double salt, ii, 119.
- cryohydric quintuple points, ii, 447.
- the number of saturated solutions of a double salt, ii, 449.
- Meyerhold, F. A., acid reaction of muscle, ii, 176.
- Michael, A., action of diazobenzeneimide on methylic acetylenedicarboxylate, i, 570.
- addition of bromine to acetylenedicarboxylic acid and its ethylic salt, i, 144.
- comparison of experimental results with the theoretical conclusions of the Van't Hoff-Wislicenus hypothesis, i, 145.
- ethylic sodacetoacetate, i, 67.
- formation of solid crotonic acids by the reduction of α -isobromo- and α -isochloro-crotonic acids, i, 134.
- new apparatus, ii, 267.
- Michael, A., and C. C. Maisch, action of sodium ethoxide on ethylic dibromosuccinate, i, 142.
- Michael, A., and O. Schultess, crotonic acids and their derivatives, i, 132.

- Michael, A., and G. Tissot, addition of chlorine to polybasic unsaturated fatty acids, i, 142.
 ——— homologues of malic acid, i, 146.
 Michael, Mrs. H. A., addition of bromine and chlorine to solid crotonic acid, i, 134.
 Michael, R., paraxylidine, i, 198.
 Michaelis, A., action of chlorides of bibasic acids on hydrazines, i, 705.
 ——— thionylamines, i, 504.
 Michaelis, A., and R. Hermens, β -succinylphenylhydrazide or 1-phenyl-3:6-orthopiperazine, i, 370.
 Michaelis, A., and W. Jacobi, thionylamines of unsaturated bases: thionylphenylpropylamine, i, 702.
 Michaelis, A., and O. Lampe, phenylpyrazolidine, i, 611.
 Michaelis, A., and K. Luxembourg, derivatives of unsymmetrical allylphenylhydrazine and allyltolylhydrazine, i, 704.
 Michaelis, A., and G. Schröter, thionylbenzylhydroxylamine and dibenzoxycarbamide, i, 702.
 Michaelis, A., G. Schröter, and E. Linow, action of thionyl chloride on benzylamine and its homologues, i, 703.
 Michaelis, A., and H. Siebert, action of thionyl chloride on acid amides, i, 553.
 Michaelis, A., and O. Storbeck, action of thionyl chloride on benzylamine, i, 515.
 ——— thionylamines of the aromatic series, i, 504.
 ——— thionyl-diethylhydrazone, i, 249.
 Michaelis and others, thionylamines of the aliphatic series, i, 515.
 Michaelis, L., bromination of aromatic hydrazines and amines, i, 705.
 Michaud, G., and J. F. Tristan, agavose, i, 64.
 Michel, L., artificial production of garnet (melanite) and sphene, ii, 129.
 ——— artificial production of rutile, ii, 173.
 Michel, O., and E. Grandmougin, acetyl derivatives of 2:1-amidonaphthol, i, 171.
 Michel, O. See also Noelting.
 Michels, W., seleno- and thio-derivatives of ethylamine, i, 30.
 Michels, W. See also Gabriel.
 Mijers, J., constitution of bleaching powder, ii, 209, 372.
 Miklascheffsky, S., hydration of ethylenic hydrocarbons, i, 61.
 Millar, J. H. See Tilden.
 Miller, L., transformation of chemical into electrical energy, ii, 107.
 Miller, O., estimation of indigotin in commercial indigo, ii, 352.
 Miller, W. v., and J. Plöchl, amid-oxylic acids, i, 502.
 Minguin, J., bromal borneolates, i, 526.
 Minunni, G., α -benzilephenylhydrazine and the oxidation of the hydrazones, i, 97.
 ——— condensation of β -benzoylphenylhydrazine with aldehydes, i, 86.
 ——— constitution of isomeric aliphatic oximes, i, 188.
 ——— formation of benzonitrile from α -benzaloxime, i, 89.
 ——— isomerism of oximes, i, 89.
 ——— preparation of benzoic anhydride: formation of dehydracetic acid from acetic chloride, i, 92.
 Minnuni, G., and G. Corselli, action of phenylhydrazine on some isomeric aldoximes, i, 87.
 ——— action of phenylhydrazine on the benzoyl derivatives of some α -aldoximes, i, 88.
 ——— determination of the structure of the oximido-group in the ethers of the oximes, i, 87.
 Minunni, G., and G. Ortoleva, benziloximes, i, 97.
 Miolati, A., paramagenta, i, 572.
 ——— synthesis of mercaptothiazoles, i, 634.
 ——— thiocyanacetamide and isothiohydantoin, i, 405.
 Miolati, A. See also Hantzsch, Werner.
 Mitchell, C. A., black antimony trisulphide, ii, 473.
 Mitscherlich, A., the ignition point, ii, 202, 257.
 Mittelmeier, H. See Scheibler.
 Mixer, W. G., behaviour of charcoal with halogens, nitrogen, sulphur, and oxygen, ii, 571.
 Möhlau, R., and R. Berger, introduction of the phenyl group into cycloid compounds, i, 701.
 ——— phenylnaphthalenes and Zincke's hydrocarbon $C_{16}H_{12}$, i, 522.
 Möhlau, R., and E. Fritzsche, formation of acridine dyes, i, 470.
 Mörner, C. T., action of drugs containing iron, ii, 427.
 ——— proteids of the crystalline lens, ii, 424.
 Mohrberg, C., cephalanthin, i, 112.
 Moissan, H., action of a high temperature on metallic oxides, ii, 167.

- Moissan, H.**, estimation of boron, ii, 435.
 — fusion and volatilisation of metals and oxides in the electric arc, ii, 507.
 — graphite, carbonado, and microscopic diamonds in blue earth from the Cape, ii, 285.
 — intumescent graphite, ii, 320.
 — iron from Ovivak, ii, 475.
 — opium smoke, i, 226.
 — physical constants of fluorine, ii, 204.
 — preparation of carbon under high pressure, ii, 275.
 — preparation of chromium and manganese at a high temperature, ii, 281.
 — preparation of tungsten, molybdenum, and vanadium in the electric furnace, ii, 471.
 — preparation of uranium at a high temperature, ii, 283.
 — properties of diamonds, ii, 319.
 — the ash of diamonds, ii, 319.
 — the meteorite from Cañon Diablo, ii, 288.
 — volatilisation of zirconia and silica at a high temperature, and their reduction by carbon, ii, 532.
Moissan, H., and **H. Gautier**, specific heat of boron, ii, 404.
Moissan, H., and **J. Violle**, an electrical furnace, ii, 314.
Moitessier, J. See **Bertin-Sans**.
Molinari, E., stereochemistry or motorchemistry? ii, 513.
Molisch, A., iron in plants, ii, 484.
Moll, F. See **Nietzki**.
Monfet, L. See **Petit**.
Monnet, P., aniselines, i, 274.
Montemartini, C., combustion of hydrogen in nitrous oxide, ii, 113.
 — reaction between nitrites and the salts of hydroxylamine, ii, 160.
Monti, A. See **Lilienfeld**.
Moody, G. T., studies on isomeric change. Part II. Orthoxylensulphonic acids, *Proc.*, 1892, 213.
 — studies on isomeric change. Part III. Phenetolsulphonic acids, *Proc.*, 1892, 214.
Moody, H. R. See **Talbot**.
Moore, S. L. M., supposed presence of albumin in the walls of vegetable cells, ii, 180.
Moore, T., assay of tin ore, ii, 501.
Moraht, H., titration of ferric salts, ii, 193.
Moraht, H., and **C. Wischin**, osmium, ii, 380.
Moraht, H. See **Krüss**.
Morat, J. P., and **M. Doyon**, physiological action of atropine and pilocarpine, ii, 222.
Moreau, B., precipitation of phosphates and arsenates by ammonium molybdate, ii, 45.
Morgan, J. J. See **Parry**.
Morgernstern and **A. Pavlinoff**, estimation of phosphoric acid in wines, ii, 389.
Moroziewicz, J., synthesis of minerals, ii, 422.
 — synthesis of minerals of the hauyn group, ii, 19.
Morris, G. H. See **Brown**.
Moschatos, H., and **B. Tollens**, additive products and compounds of hexamethylenamine, i, 298.
Moses, A. J., ettringite and alabandine from Arizona, ii, 578.
 — ettringite from Tombstone, Arizona, ii, 536.
Motteu. See **Lindemann**.
Moureu, acrylamide, i, 695.
 — acrylic anhydride, i, 688.
 — acrylonitrile, i, 682.
 — action of acrylic chloride on alcohols and phenols, i, 688.
 — new method for preparing acrylic acid, i, 548.
 — substituted acrylamides, i, 695.
Moyer, J. B. See **Smith**.
Mühlhäuser, O., boron carbide, ii, 570.
 — higher nitro-derivatives of starch, i, 6.
Müller, A. See **Töhl**.
Mueller, F. See **Lehmann**.
Müller, M., distillation apparatus for analysis, ii, 487.
Müller, R., α -phenylcinnamic acid, i, 341.
Müntz, A., and **H. Coudon**, ammoniacal fermentation in soils, ii, 291.
Müntz, A., and **A. C. Girard**, loss of nitrogen in manures, ii, 181, 228.
Muirhead, A. See **Abel**.
Mulder, E., ketonic compound from tartaric acid, i, 685.
Muller J. A., estimation of nitrogen in soils by Kjeldahl's method, ii, 43.
 — estimation of the dry residue in wines, ii, 501.
 — new accessory to Lunge's gas-volumeter, ii, 229.
 — new gas-volumeter, ii, 230.
Muller, P. T., ethylic phthalocyanacetate, i, 467.
Muller, P. T. See also **Hausser**.
Muller, T., action of chlorides of bibasic acids on ethylic sodiocyanacetate, i, 143.

- Mulliken, S. P., organic electrosyntheses, i, 630.
 Munk, I. See Lehman.
 Murray, T. S. See Japp.
 Muthmann, W., preparation of barium permanganate, ii, 324.
 — preparation of pure rubidium salts, ii, 321, 414.
 — red phosphorus, ii, 458.
 Muthmann, W., and J. Schäfer, selenium compounds, ii, 318.
 Myers, W. S. See Collie.
- N.**
- Naccari, A., osmotic pressure, ii, 513.
 Napieralski, B. See Bischler.
 Nasini, R., refractive powers for a ray of infinite wave-length, ii, 505.
 Nasini, R., and A. Pezzolato, decomposition of salts of nicotine and the action of alcohol on them, i, 444.
 Nastiukoff, A., colorimetric analysis of phosphorites, ii, 553.
 — Witz's oxycellulose, i, 387.
 Natterer, K., water and sea-bottom deposits of the Eastern Mediterranean, ii, 216.
 Naupert, A., and W. Wense, minerals occurring in the Westeregeln salt beds, ii, 325.
 Nef, J. U., ethylic acetoacetate, i, 628.
 Neger, F. See Pechmann.
 Negovoroff, A., amine from dextromenthone, i, 224.
 Neher, F., precipitation of arsenic as pentasulphide, and its separation from bismuth, lead, cadmium, and antimony, ii, 186.
 Neitzel, E., titration of acids by metallic sodium, ii, 550.
 Nemirovsky, A., isomeric bromanilines, i, 21.
 Nencki, M., composition of hæmatin and of hæmatoporphyrin, i, 743.
 Nencki, M., and H. Boutmy, influence of the carboxyl group on the toxic action of aromatic compounds, ii, 178.
 Nernst, W., participation of a solvent in chemical reactions, ii, 367.
 Nernst, W. and C. Hohmann, formation of amylc salts from acids and amylene, i, 449.
 Neubauer, H., estimation of phosphoric acid as magnesium pyrophosphate, ii, 236, 489.
 Neubert, C., azo- and hydrazo-benzyl alcohols, i, 200.
 Neumann, A. See Gabriel.
- Neumann, G., action of hydriodic acid on cinchonidine, i, 231.
 Neve Foster. See Le Neve Foster.
 New, C. H., estimation of nitrogen in coal gas, ii, 296.
 Newmann. See Salazar.
 Niccoli, L. See Antony.
 Nickel, E., determination of stereoisomerides, i, 681.
 — graphochemical calculation, ii, 278, 464.
 — graphochemistry of compounds $C_nH_mO_p$, i, 185.
 — graphochemistry of gunpowder, ii, 115.
 — graphochemistry of lime-soda glasses, ii, 119.
 Nicolas, C., sulphur compounds in mineral waters of Barèges, ii, 326.
 Niebel, W., detection of horse flesh in food, ii, 312.
 Niementowski, S., diazoamido-compounds, i, 201.
 Nietzki, R., and A. Bossi, oxazine dyes, i, 44.
 Nietzki, R., and F. Moll, derivatives of phloroglucinol, i, 699.
 — dinitrocatechol and its conversion into nitranilic acid, i, 699.
 Nietzki, R., and E. Rehe, dinitrochlorotoluene and the synthesis of azine dyes, i, 15.
 Nietzki, R., and R. Zehnter, benzeneazonaphthalene and tolueneazonaphthalene, i, 275.
 Nihoul, E., estimation of bromine and iodine in presence of chlorine, ii, 42.
 — estimation of iron by an iodometric method, ii, 439.
 — estimation of sugars by means of Fehling's solution, ii, 601.
 Niles, E. P., antiseptic treatment of wounds, ii, 223.
 Nilson, L. F. See Killgren.
 Nobbe, F., and L. Hiltner, how are nodule-bearing Leguminosæ enabled to utilise free atmospheric nitrogen? ii, 588.
 Nobbe, F., E. Schmid, L. Hiltner, and E. Hotter, physiological meaning of the root nodules of *Elæagnus angustifolius*, ii, 33.
 — — — the power of propagation of the leguminous bacteria in soils, ii, 32.
 Noël-Paton, D., crystalline globulin occurring in human urine, ii, 290.
 — influence of fever on hepatic glycogen, ii, 541.
 Noelting, E., E. Grandmougin, and O. Michel, formation of hydrogen

- nitride (azoimide) from aromatic azoimides, i, 90.
- Noelting, E., and O. Michel, action of diazo-compounds on hydrazines, i, 202.
- conversion of amines into diazoimides by means of azoimide, i, 202.
- Noelting, E. See also Witt.
- Norden, C. v., alcohol as a substitute for albumin under various conditions of feeding, ii, 328.
- Nordenskiöld, A. E., molecular weight of gadolinium oxide, ii, 211.
- Nordenskiöld, native iron of Ovifak and the bitumen in the crystalline rocks of Sweden, ii, 326.
- Nordenskiöld, G., pholidolite from Sweden, ii, 174.
- Nordenskiöld, O., thiocyanates of chromammonium compounds, i, 290.
- Norton, L. M., estimation of chlorine in electrolytic solutions, ii, 41.
- Norwall. See De Norwall.
- Norwall, F. K. v. See Skraup.
- Nothnagel, G., muscarine, i, 297.
- Noyes, A. A., dissociation ratio of salts, ii, 565.
- electrolytic dissociation of acid salts, ii, 365.
- Noyes, A. A., and A. A. Clement, electrolytic reduction of nitrobenzene dissolved in sulphuric acid, i, 406.

O.

- Oberholtzer, V. See Smith.
- Oddo, G., camphor, i, 422.
- isonitrosocamphor, i, 660.
- Oddo, G., and G. Ampola, mixed naphthyl-azo-compounds, i, 655.
- Oesterele, O., guttapercha, i, 224.
- Offermann, H., detection and estimation of thiocyanates in ammonium sulphate, ii, 556.
- Olasavasky, V. See Klug.
- Oliver, T., and F. C. Garrett, gases of blood during anaesthesia, ii, 540.
- Oliviero. See Bouchardat.
- Olzewski, K., and A. Witkowski, optical properties of liquid oxygen, ii, 353.
- Omelyansky, V., influence of dilution on the velocity of chemical reactions, ii, 510.
- O'Neill, E. See Lengfeld.
- Ono, H. See Shimoyama.
- Ordonneau, C., calcium tartrate from distillery residues, its estimation and purification, ii, 558.
- Orndorff, W. R., and C. G. Hopkins, decomposition of diazobenzene sulphate in isoamyl alcohol, i, 639.
- Orndorff, W. R., and J. White, molecular weight of hydrogen peroxide and of benzoyl peroxide, i, 579.
- Orndorff, W. R., and S. W. Young, condensation products of acetone with concentrated sulphuric acid, i, 498.
- Ortoleva, G. See Minunni.
- Orton, E., quartz boulder in Ohio coal, ii, 78.
- Osborne, T. B., crystallised vegetable proteids, i, 380.
- proteids of linseed, ii, 292.
- Osborne, T. B., and C. G. Voorhees, proteids of wheat, i, 741.
- Oser, W. See Bischler.
- Ost, H., estimation of fluorine in the ashes of plants, ii, 234.
- Ostwald, W., discoverer of the method of determining the density of solids by suspension, ii, 508.
- electrolytic dissociation of water, ii, 365.
- thermochemistry of the ions, ii, 357.
- O'Sullivan, J., Dumas' method for estimating nitrogen, ii, 297.
- Otto, R., anilides of benzenesulphonic and paratoluenesulphonic acids, i, 416.
- preparation of pure ethylic benzenesulphinate and ethylic paratoluenesulphinate, i, 270.
- reactions of phenylic iododichloride and iodosobenzene, i, 256.
- Otto, R., and A. Rössing, ethereal sulphates, i, 343.
- Otto, R., A. Rössing, and J. Tröger, sulphonic derivatives of naphthalene, i, 276.
- Otto, R., and J. Tröger, constitution of glyoxylic acid, i, 141.
- constitution of the iodides of aromatic sulphonic acids, i, 269.
- diphenylsulphone and ditolylsulphone ethyl ethers, i, 415.
- non-existence of Stenhouse's phenylthiosulphuric acid: sulphonic acids of phenyl sulphide: Bunte's salt, i, 416.
- synthesis of symmetrical diphenylsulphoneacetone by means of symmetrical dichloroacetone, i, 167.
- Otto, R., and G. Zuschlag, chemical behaviour of ethereal salts of sulphonic acids, i, 344.
- Ouvrard, L., arsenic and antimony iodosulphides, ii, 533.

- Ouvrard, L., arsenic chlorosulphides and antimony chlorosulphides, ii, 533.
 — phosphorus iododisulphide, ii, 164.
 Overton, B., stereochemical phenyl- and diphenyl-hydrazones, i, 208.
 Owens, W. G., meteorite from Central Pennsylvania, ii, 80.

P.

- Paal, C., hyponitrous acid, ii, 372.
 Paal, C., and A. Bodewig, orthonitrobenzyl alcohol, i, 20.
 Paal, C., and E. Fritzweiler, orthonitrobenzylmetamidobenzoic acid, i, 209.
 — 2-paratolylindazole, i, 46.
 Paal, C., and E. Laudenheimer, action of carbon bisulphide on orthamidobenzyl alcohol, i, 25.
 — orthamidobenzyl alcohol and its derivatives, i, 23.
 — synthesis of 2-dimethylhydri-
 indole, i, 37.
 Pagliani, S., specific conductive capacities and refraction constants, ii, 505.
 Palladin, W., ash in etiolated leaves, ii, 140.
 Panfiloff, I., ethylmethylpropylethylene glycol, i, 545.
 Panormoff, A., formation of ethereal salts of benzoic acid from alcohols and carbohydrates, i, 186.
 — sugar in muscle, ii, 383.
 Papendieck, A. See Buchner.
 Pařízek, A. P., and O. Šule, applications of Raoult's law at the boiling points of solutions, ii, 406.
 Parks, R. M., action of methyl alcohol on paradiazotolueneorthosulphonic acid, i, 585.
 Parlato, E. See Anschütz.
 Parry, J., and J. J. Morgan, analysis of iron and steel, ii, 499.
 Parsons, C. L., comparison of methods for the standardisation of acid and alkaline solutions, ii, 232.
 — potassium tetroxalate, ii, 233.
 Partheil, A., cytosine and ulexine, i, 119.
 — estimation of the volatile fatty acids in butter fat, ii, 197.
 Paschkowsky, S., magnesium nitride, ii, 209.
 Passerini, N., composition of chick-peas (*Cicer arietinum*): presence of boron, lithium, and copper in the plant, ii, 226.
 — composition of *Iris germanica*: presence of boron, lithium, and copper in the plant, ii, 227.
 Passerini, N., composition of the stems and leaves of tomatoes: presence of boron, lithium, and copper in the plant, ii, 225.
 Passmore, F. W. See Helbing.
 Paton. See Noël-Paton.
 Patry, A. See Pictet.
 Patterson, L. G., estimation of butter fat in milk, ii, 252.
 Paturel, G. See Boiret.
 Paul, T., estimation of antimony and the use of the Gooch filter, ii, 90.
 Pavlinoff, A. See Morgernstern.
 Pavloff, D. See Grigorovitch.
 Payne, H. L., preparation of standard iodine solution, ii, 234.
 Pearce, R., crystalline compound of arsenious and sulphuric anhydrides, ii, 66.
 Pearce, S. H. See Penfield.
 Pears, A., composition of a specimen of jute fibre produced in England, TRANS., 964.
 Pease, F. N. See Dudley.
 Péchard, E., combination of molybdates with sulphurous acid, ii, 530.
 — combination of oxalic acid with titanous and stannous acids, i, 625.
 — combination of selenious acid with molybdates: molybdoselenious acid, ii, 530.
 Péchard, E. See also Baubigny.
 Pechmann, H. v., action of diazobenzene on malonic acid, i, 82.
 — aromatic diazo-compounds, i, 154.
 — Bülow's reaction and the oxidation of hydrazones, i, 461.
 — coumalic acid, i, 401.
 — mixed azo-compounds, i, 84.
 Pechmann, H. v., and F. Neger, action of acetic anhydride on acetonedicarboxylic acid, i, 398.
 Pechmann, H. v. See also Henry.
 Pélabon, H., absorption of hydrogen selenide by liquid selenium at high temperatures, ii, 457.
 Pellacani, F., derivatives of dibromothymol, i, 316.
 Pemberton, H., jun., and G. P. Tucker, deposits of native soda near Laramie, Wyoming, ii, 535.
 Penfield, S. L., cookeite from Paris and Hebron, Maine, ii, 538.
 — three supposed new sulphides of iron and nickel, ii, 535.
 — xenotime from El Pasco Co., Colorado, ii, 537.
 — zunyite from Colorado, ii, 538.
 Penfield, S. L., and S. H. Pearce, polybasite and tennantite from Aspen, Colorado, ii, 75.
 Penfield, S. L. See also Wells.

- Penny, E. See Kossler.
- Peratoner, A., action of iodine on derivatives of acetylene, i, 2.
- decomposition of the ethylic salts of some chloro- β -ketonic acids by dilute sulphuric acid, i, 11.
- phenylacetylene diiodide, i, 18.
- phenyliodoacetylene, i, 19.
- Peratoner, A., and G. Siringo, action of carbonyl chloride on sodio-phenylhydrazine, i, 24.
- Perkin, A. G., constituents of the Indian dye-stuff kamala, TRANS., 975.
- hexanitroxanilide, TRANS., 1063.
- Perkin, A. G., and J. J. Hummel, the colouring and other principles contained in chay root, TRANS., 1160.
- the colouring principles of *Rubia sikkimensis*, TRANS., 1157.
- Perkin, W. H., the magnetic rotation and refractive power of ethylene oxide, TRANS., 488.
- magnetic rotation of sulphuric acid and nitric acid and their aqueous solutions, also of solutions of sodium sulphate and lithium nitrate, TRANS., 57.
- Perkin, W. H., jun., sulphocamphylic acid, PROC., 1893, 109.
- tetramethylene-derivatives, i, 693.
- Perkin, W. H., jun., and G. Révay, synthesis of indene and hydrindene, i, 716.
- Perkin, W. H., jun. See also Haworth.
- Perlmutter, A., action of nascent hydrogen on quinolinic acid, i, 176.
- Perrault, A., volumetric estimation of chromium, ii, 194.
- Perrier, G., metallic compounds of the benzene series, i, 508, 578.
- Pesch. See Van Pesch.
- Pesci, L., methylphenylmercurammonium hydroxide and salts, i, 24.
- Petermann, A., amount of starch in different varieties of potatoes, ii, 430.
- the nitrogen question, ii, 33, 291.
- Petermann, A., and J. Graftian, carbonic anhydride in the air, ii, 67.
- combined nitrogen in rain, ii, 548.
- Petersen, E., double halogen compounds of gold, ii, 126, 474.
- heat of dissociation of some acids, ii, 259.
- Petersen, J., cryoscopy, &c., of ammonio-metallic compounds, ii, 156.
- estimation of hydrazine in hydrazine salts, ii, 605.
- Petit, A., and L. Monfet, estimation of organic nitrogen, ii, 343.
- Petit, P., calcium sucates, i, 451.
- vegetable nucleïn, i, 539.
- Petrenko-Kritschenko, P., palladium sulphides, ii, 475.
- Petrenko-Kritschenko, P. See also Meyer.
- Pettersson, O., anhydrous chlorides of metals of the rare earths, ii, 466.
- Pettersson, O., and A. Smett, estimation of carbon in iron and steel, ii, 491.
- Pezzolato, A. See Nasini.
- Pfeiffer, T., and G. Kalb, deposition of albumin during the fattening of full grown animals, ii, 25.
- Pflüger, E., estimation of glycogen, ii, 601.
- nutrition with carbohydrate and flesh, and with carbohydrate alone, ii, 327.
- origin of fat from proteïd in the body, ii, 327.
- Philipp, C., condensation products of amidophenols and amidophenyl ethers with aldehydes and ketones, i, 78.
- Philips, A. See Graebe.
- Phinney, J. I., treatment of barium sulphate in analysis, ii, 552.
- Phinnuey, J. I. See also Gooch.
- Phipson, T. L., fluorine in fossil wood, ii, 76.
- identity of cascarin and rhamno-xanthin, i, 113.
- Phokin, S., oxidation of diallyloxalic acid by potassium permanganate, i, 12.
- Phoockan, R. D., speed of vaporisation of compounds in different atmospheres, ii, 564.
- Piccinini, A., action of hydrogen peroxide on certain fluorides and oxyfluorides, ii, 124, 213.
- Piccinini, A., and G. Ruspaggiari, mercuranilido-compounds, i, 322.
- Pichard, P., greater assimilability of the nitrogen of recently formed nitrates, ii, 548.
- Pickardt, M., detection of dextrose in blood, ii, 81.
- Pickell, J. M., and J. J. Earle, analyses of oranges, ii, 227.
- Pickering, J. W., physiology of the embryonic heart, ii, 424.
- proteïd reactions, i, 615.
- Pickering, S. U., a study of the properties of some strong solutions, TRANS., 998.
- cryoscopic behaviour of weak solutions. Parts V, VI, and VII, ii, 110.
- density of sulphuric acid solutions, ii, 155.

- Pickering, S. U., diffusion of substances in solution, ii, 155.
 — freezing points of sodium chloride solutions, ii, 365, 565.
 — isolation of two predicted hydrates of nitric acid, TRANS., 436.
 — note on the stereoisomerism of nitrogen compounds, TRANS., 1069.
 — refractive indices and magnetic rotations of sulphuric acid solutions, TRANS., 99.
 — the hydrate theory of solutions. Some compounds of the alkylamines and ammonia with water, TRANS., 141.
 — the hydrates of hydrogen chloride, PROC., 1893, 45.
 — the hydrates of sodium, potassium, and lithium hydroxide, TRANS., 890.
 Pickersgill, N. See Kehrmann.
 Pictet, A., and E. Patry, phenanthridine, i, 722.
 Pictet, R., formation of nitro-derivatives at low temperatures, i, 460.
 — general method of chemical synthesis, ii, 112, 451.
 Pinkus, G., penthiazolines, i, 427.
 Pinkus, G. See also Gabriel.
 Pinner, A., action of hydrazine on imido-ethers, i, 710.
 — constitution of nicotine, i, 286, 443, 736.
 — pyrimidines free from oxygen, i, 735.
 Pinnow, J., action of benzenesulphonic chloride on amidoximes, i, 332.
 Pinnow, J., and G. Pistor, action of formaldehyde on nitrosodimethylaniline, i, 509.
 Pionchon, incomplete oxidation of aluminium, ii, 572.
 Pirsson, L. V., volcanic rocks from Gough's Island, S. Atlantic, ii, 539.
 Pisani, F., idocrase, ii, 578.
 Pistor, G. See Pinnow.
 Pitsch, O., are nitrates indispensable for the growth of plants? ii, 385.
 Plaats. See Van der Plaats.
 Placet, E., preparation of metallic chromium by electrolysis, ii, 122.
 Planta, A. v., and E. Schulze, estimation of stachyose in the tubers of *Stachys tuberosa*, ii, 53.
 — organic bases in the tubers of *Stachys tuberosa*: stachydrine, i, 447, 679.
 Plöchl, J. See Miller.
 Plugge, P. C., cerberin, i, 481.
 — volumetric estimation of alkaloïds, ii, 199.
 Poirault, G. See Bertrand.
 Poleck, T., ethyl alcohol in oil of roses, ii, 181.
 — jalapin, i, 225.
 Poleck, T., and B. Grützner, crystalline alloy of iron and tungsten, ii, 170.
 Politis, G., asparagine as a nutritive substance, ii, 27.
 Pollard, W. See Hutchinson.
 Pomeranz, C., bergapten, i, 342.
 — new synthesis of isoquinoline, i, 607.
 Pomfret, H. W., physiological action of organic oximides, ii, 584.
 Pope, W. J. See Kipping.
 Posner, T., cinnamylamine and its derivatives, i, 568.
 Potilitzin, A., decomposition of strontium bromate by heat, ii, 11.
 — determination of the melting point of inorganic substances, ii, 314.
 Potilitzin, A. L., formation of super-saturated solutions, ii, 509.
 — structure of nitro-compounds and of the oxides of nitrogen, i, 636.
 Poulenc, C., anhydrous and crystalline iron fluorides, ii, 122.
 — chromium fluorides, ii, 281.
 — copper fluorides, ii, 525.
 — fluorides of the alkaline earths, ii, 414.
 — zinc and cadmium fluorides, ii, 321.
 Prausnitz, W., metabolism during inanition, ii, 477.
 — phloridzin diabetes, ii, 480.
 Prescott, A. B., mercuriodides of organic bases, i, 376.
 Preston, H. L., new meteorite from Kentucky, ii, 79.
 Pflüger, R., and C. Glücksmann, behaviour of thiocarbonates towards phenols, i, 75.
 Priest, M. See Shenstone.
 Prinz, W., crystalline forms of chromium and iridium, ii, 281.
 Prior, estimation of acids in beer, ii, 53.
 Pfiwoznik, E., tellurium, ii, 205.
 Prost, E., and V. Hassreidter, Schaffner's volumetric zinc process, ii, 92.
 Prud'homme, direct conversion of aniline into nitrobenzene, i, 323.
 Prud'homme, M., relation between heats of formation and temperatures of reaction, ii, 152.
 Prud'homme and C. Rabaut, constitution of colouring matters of the rosaniline group, i, 640.
 — dihydroxyanthraquinone-formamide, i, 659.

- Pukall, W., clay filters, ii, 368.
 Pulvermacher, G., formaldehyde, i, 389.
 — phenyl- α -hydroxycrotonic acid, i, 342.
 Pum, G., molecular transformation of cinchonine, i, 181.
 Purdie, T., resolution of lactic acid into its optically active components, TRANS., 1143.
 Purdie, T., and W. Marshall, resolution of methoxysuccinic acid into its optically active components, TRANS., 217.
 Purdie, T., and J. W. Walker, optically active ethoxysuccinic acid, TRANS., 229.
 Purgotti, A., action of sodium sulphide on orthodiazophenol chloride, i, 330.
 — paranitrophenylhydrazine, i, 155.
 — reduction of benzilhydrazone, i, 354.
 Puschl, C., elasticity of gases, ii, 9.
 Pychlau, E. See Claus.

Q.

- Quantin, H., analysis of mixtures of ammonia and methylamines, ii, 104.

R.

- Rabaut, C. See Prud'homme.
 Ragozin, V., zinc isopropide, i, 622.
 Raisonnier, L., bye-products of the action of sodium hydroxide on glycerol, i, 246.
 Ramage, H. See Hartley.
 Ramsay, W., note on the combination of dry gases, PROC., 1893, 165.
 Ramsay, W., and Miss E. Aston, the atomic weight of boron, TRANS., 207.
 Ramsay, W., and J. Shields, the boiling point of nitrous oxide at atmospheric pressure and the melting point of solid nitrous oxide, TRANS., 833.
 — — the molecular complexity of liquids, TRANS., 1089.
 Ramsden, proteids of white of egg, i, 379.
 Randall, W. W., double chlorides of lead and ammonium, ii, 523.
 Rau, A., estimation of succinic acid, ii, 557.
 — succinic acid, i, 10.
 Rave, P., and B. Tollens, lactone from formaldehyde and levulinic acid, i, 628.
 Rave, F., and B. Tollens, penterythritol, i, 617.
 Rayleigh, Lord, densities of the principal gases, ii, 514.
 — the relative densities of hydrogen and oxygen, ii, 10.
 Recklinghausen, M. v., mercurial thermometer for temperatures up to 550°, ii, 443.
 — phosphorus sulphides, ii, 458.
 Recoura, A., chromopyrosulphuric acid, ii, 528.
 — chromosulphuric, chromotrisulphuric, and chromosulphochromic acids, ii, 470.
 Reed, L., notes on capillary separation of substances in solution, PROC., 1893, 123.
 Reese, C. L., formation of phosphate nodules, ii, 77.
 Reformatsky, A. See Markovnikoff.
 Regelsberger, F., assay of aluminium and some of its alloys, ii, 48.
 Rehe, E. See Nietzki.
 Reiche, F. See Fränckel.
 Reid, E. W., mucin granules of *Myxine glutinosa*, ii, 429.
 Reinbrecht, O., lactosecarboxylic and maltosecarboxylic acids, i, 148.
 Reinhardt, H., analysis of aniline oils, ii, 605.
 Reis, M. A. v., estimation of manganese in iron, ii, 304.
 Reischle, A., new alkali borates, ii, 460.
 Reischle, A. K., estimation of boric acid, ii, 491.
 Reissert, A., di- γ -amidopropylacetic acid and octohydro-1:1-naphthopyridine, i, 687.
 — products of the action of aniline on dibromosuccinic acid, i, 564.
 Reissert, A. See also Junghahn.
 Reitmair, O., and A. Stutzer, estimation of nitrous acid in sodium nitrite, ii, 43.
 Remertz, J. See Harnack.
 Remmler, H., cobalt, ii, 211.
 Remmler, W. See Jannasch.
 Remsen, I., and P. J. Dashiell, decomposition of diazo-compounds, i, 325.
 Rennie, E. H., the colouring matters of *Drosera Whittakeri*, TRANS., 1083.
 Retgers, J. W., crystalline nature of red phosphorus, ii, 457.
 — determination of the specific gravity of salts soluble in water, ii, 363.
 — isomorphism, ii, 161.

- Retgers, J. W., solubility of mercuric iodide in diiodomethane, ii, 374.
 — solubility of metallic iodides, &c., in diiodomethane, ii, 378.
 — sublimation of arsenic, ii, 570.
 — use of thallium silver nitrate for separating minerals, ii, 294.
- Révay, G. See Perkin.
- Reverdin, F., and C. de la Harpe, action of acetic anhydride on dimethylaniline, i, 23.
 — amidonaphtholsulphonic acids, i, 478.
 — dinitrophenol, i, 19.
 — preparation of naphthidine, i, 421.
- Reychler, A., diffusibility of certain gases through a caoutchouc membrane, ii, 564.
 — nature of solutions, ii, 315.
 — preparation of carbamide, i, 696.
- Rheinendorff, T. See Wallach.
- Rhodin, S., experiments with ammonium sulphate and sodium nitrate for barley and oats, ii, 593.
- Riban, J., colorimetric estimation of iron, ii, 50.
- Richards, T. W., atomic weight of barium, ii, 463.
 — atomic weight of copper, ii, 12.
- Richardson, A., the action of light in preventing putrefactive decomposition, and in inducing the formation of hydrogen peroxide in organic liquids, TRANS., 1109.
- Richardson, F. W., estimation of silk in fabrics, ii, 611.
- Richarz, F., law of Dulong and Petit, ii, 404.
- Richet, C., toxicity of certain mineral salts, ii, 179.
- Richet, C. See also Hanriot.
- Richmond, H. D., estimation of total solids in milk, ii, 252.
 — Leffmann and Beam's method for the estimation of milk fat, ii, 308.
 — the Reichert process, ii, 307.
- Rideal, S., sulphuric acid hydrolysis of butter fat, ii, 602.
- Riedel, J. D., names of new remedies, i, 225.
- Rietschoten. See Van Rietschoten.
- Riggs, R. B., separation of magnesium chloride from the chlorides of sodium and potassium, ii, 46.
- Rijn Van Alkemade. See Van Rijn Van Alkemade.
- Rimbach, E., atomic weight of boron, ii, 207.
 — employment of borax for standardising acids, ii, 233.
- Ripper, M., estimation of sulphurous acid in wine, ii, 189.
 — gravimetric estimation of sulphuric acid, ii, 239.
- Ritter, A. See Cremer.
- Roberts, Miss C. F., estimation of chlorates and nitrates, and of nitrates and nitrites in one operation, ii, 596.
 — reduction of nitric acid by ferrous salts, ii, 595.
- Robertson, G. H., the Planté lead | sulphuric acid | lead peroxide cell from a chemical standpoint, ii, 3.
- Robertson, G. H. See also Armstrong.
- Robineau, F. and G. Rollin, detection of iodates in iodides, ii, 183.
 — volumetric estimation of acetone, ii, 556.
- Robinson, F. C., phosphoric acid in beryl, ii, 215.
- Röhmman, F., conversion of starch into sugar by means of blood serum, i, 187.
 — diastatic ferment in lymph, ii, 333.
- Rössing, A. See Otto.
- Röttger, H., qualitative and quantitative wax analysis, ii, 351.
- Rogers, W. A. C., the preparation of active amyl alcohol and active valeric acid from fusel oil, TRANS., 1130.
- Rogoff, M., volume changes in aqueous solutions, ii, 447.
- Rollin, G. See Robineau.
- Roloff, M., applications of Beckmann's boiling point method apparatus, ii, 260.
- Romig, E. See Schraube.
- Roozeboom, H. W. B., hydrates of ferric chloride, ii, 119.
- Rose, T. K., detection of gold in dilute solutions, ii, 245.
 — limits of accuracy attained in gold bullion assay, TRANS., 700.
 — the volatilisation of metallic gold, TRANS., 714.
- Rosenbach, O., chromic acid as a reagent for albumin: bile pigments in urine, ii, 200.
- Rosenbaum, M., estimation of chlorides, hypochlorites, and chlorates in presence of one another, ii, 388.
- Rosenberg, N., derivatives of the β -naphtholcarboxylic acid melting at 216° , i, 221.
- Rosenfeld, M., decomposition of aqueous vapour by magnesium, ii, 168.
- Rosenheim, A., action of inorganic and metallic oxides on organic acids, i, 626.
 — oxalic acid derivatives, i, 457.

Rosenheim, A., and C. Friedheim, estimation of vanadic oxide, ii, 195.
 Rosenheim, O., and J. Tafel, oxidation of parahydroxyquinoline, i, 605.
 Rosenheim, T., occurrence of ammonia in the stomach contents, ii, 177.
 Rosenstiehl, A., acid salts and constitution of rosanilines, i, 332.
 Roser, W., constitution of the so-called quinoline ammonium bases, i, 177.
 Rosin, H., detection of bile pigments in urine, ii, 398.
 — urinary colouring matters, i, 539.
 Rothenburg, R., v., action of hydrazine hydrate on organic halogen compounds, i, 410.
 — benzo-3-phenylpyridazone, i, 368.
 — derivatives of pyrazolone, i, 729.
 — pyrazolone, i, 180, 367, 428.
 — pyrazolone from ethylic acetylenedicarboxylate, i, 611.
 — pyrazolone from ethylic propiolate, i, 611.
 — pyridazone, i, 732.
 — reaction of hydrazine hydrate with the nitro-, nitroso-, and isonitroso-groups, i, 701.
 Rouffaer, H. A., action of phthalic chloride on trinitraniline, i, 515.
 Rousseau, G., action of water vapour on ferric chloride, ii, 280.
 — basicity and functions of manganous acid, ii, 416.
 — cyclic condensation of carbon; artificial production of the diamond, ii, 519.
 Rousseau, G., and H. Allaire, bromoborates, ii, 518.
 — iron chloroborate, and chloroborates isomorphous with boracite, ii, 468.
 Rouvier, G., combination of iodine with starch, i, 683.
 Rozycki, P., estimation of aluminium in steel, bronze, and ferroaluminium, ii, 243.
 Rubricius, H., estimation of silicon in pig iron, ii, 495.
 Rubtsoff, P., estimation of nitrogen in organic nitrates, ii, 184.
 — oximidoacetic acid, i, 391.
 Rudert, P., action of phosphorus oxychloride and of phosphorus thiochloride on aromatic amines, i, 323.
 Rudevitch, W., a decanaphthene from Caucasian petroleum, i, 635.
 Rudnew, W., molecular compounds of amines, i, 128.
 Rücker, A. W., density and composition of sulphuric acid solutions, ii, 61.

Rüdorff, F., quantitative analysis by electrolysis, ii, 93, 305, 391.
 Ruhemann, S., dihydroxypyridines, i, 527.
 — formation of pyridine derivatives from unsaturated acids: dihydroxypyridines (continuation), TRANS., 874.
 — the formation of pyridine derivatives from unsaturated acids: benzyl-dihydroxypyridine, TRANS., 259.
 Runge, C. See Kayser.
 Rupe, H., and C. Maull, camphoric acid derivatives, i, 524.
 Rusanoff, A., condensation of chloral hydrate with naphthols, i, 173.
 — indoxazen-derivatives, i, 95.
 — preparation of chloracetic acid, i, 131.
 Ruspaggiari, G. See Piccinini.
 Ryn. See Van Ryn.

S.

Saake, W., glycogen, ii, 581.
 Sabanéeff, A., cryoscopy of albumose and peptone, i, 680.
 Sabanéeff, A., and I. Antushevitch, cryoscopy of caramel, i, 619.
 Sabatier, P., and J. B. Senderens, nitrocopper, ii, 374.
 Sachs, J., substitution products of the naphthyl ethers, i, 274.
 Sachs, J. See also Marchlewski.
 Sachse, H., explanation of affinity ii, 266.
 Sachse, H. See also Liebermann.
 Sachsse, R., and A. Becker, behaviour of ferric oxide in soil and rocks, ii, 243.
 Saint Martin. See De Saint Martin.
 Saladin, electrical furnace, ii, 507.
 Salazar and Newmann, oxidation solutions of hydrogen sulphide ii, 66.
 Salkowski, E., relation of the urinary carbohydrates to humous substances, ii, 82.
 — pentoses in urine, ii, 100.
 — synovin and mucin, ii, 330.
 Salomon, A., oxazolines and thiazolines, i, 532.
 Salomon, G., episarkine, ii, 542.
 — formation of uric acid, ii, 428.
 — occurrence of glycogen in blood, ii, 333.
 Saltar, J. C. See Smith.
 Salvatori, S., estimation of glycerol in wine and other fermented liquids, ii, 248.

- Salvatori, S., oxidation of glycerol in acid solution, ii, 247.
- Salzer, T., normal borax solution, ii, 294.
- Sanda, H. See Kiliani.
- Sanderval. See De Sanderval.
- Sandford, P. G., analysis of explosive nitro-compounds, ii, 196.
- Sani, G., essential oil of *Cochlearia armoracia*, i, 633.
- Sans. See Bertin-Sans.
- Sansoni, L., behaviour of hydrochloric acid to albumin in relation to the chemical investigation of gastric juice, i, 233.
- Saporta. See De Saporta.
- Sattler, E. See Wislicenus.
- Saul, E. See Meyer.
- Saunders, C. E., derivatives of pyromucamide, i, 313.
- Saytzeff, A., structure of oleic, erucic, and isomeric acids, i, 551.
- Saytzeff, M. C., and A. Saytzeff, action of sodium hydrogen sulphite and of sulphuric acid on oleic and erucic acids, i, 549.
- Saytzeff, N., allylmethylethylcarbinol, i, 544.
- transformation of brassidic acid into erucic and isoerucic acids, i, 550.
- Saytzeff, N. See also Alexandroff.
- Schacherl, G., estimation of phenol in crude carbolic acid, ii, 394.
- Schad, P., synthesis of ring compounds from benzene derivatives with open side chains, i, 279.
- Schäfer, J. See Muthmann.
- Schaffer, goats' milk and its detection in admixture with cows' milk, ii, 396.
- Schall, C., brazilin methylether, i, 225.
- molecular weight of the carbodimides, i, 701.
- Wessel's dicarbo-base from phenylhydrazine and carbodiphenylimide, i, 461.
- Scharizer, R., falkenhaynite, a new mineral of the wittichenite group, ii, 576.
- Scheibe, R., hauchecornite, a nickel bismuth sulphide, ii, 418.
- Scheibler, C., action of alkalis on betaine, i, 498.
- Scheibler, C., and H. Mittelmeier, trehalum, a new carbohydrate, i, 496.
- Scheidt, M. See Magnanini.
- Scherer, F., arsenical pyrites, ii, 418.
- Schierbeck, N. P., influence of carbonic anhydride on the diastatic and peptone-forming ferments in the animal organism, ii, 475.
- Schiff, H., anilide of gallic acid, i, 167.
- Schiffer, A., non-crystallisable products of the action of diastase on starch, i, 127.
- Schindler, T., action of sulphuric acid on β -trimethylethylidenelactic acid, i, 71.
- Schindler, W., estimation of sulphur in iron, ii, 389.
- Schjerning, H., compounds of phenylhydrazine with metallic salts, i, 267.
- Schlagdenhauffen and Bloch, action of aqua regia on carbon bisulphide, ii, 571.
- Schliemann, J. See Lellmann.
- Schlömann, W., action of metaphosphoric acid on organic bases, i, 452.
- Schloesing, T., influence of the distribution of manures on the soil on their utilisation, ii, 141.
- Schloesing, T., jun., hygroscopic properties of textile fabrics, ii, 368.
- interchange of carbonic anhydride and oxygen between plants and the atmosphere, ii, 137, 180.
- Schloesing, T., jun., and E. Laurent, absorption of atmospheric nitrogen by plants, ii, 84, 138.
- fixation of free nitrogen by plants, ii, 336.
- Schmid, E. See Nobbe.
- Schmid, F. See Lunge.
- Schmid, J., constitution of β -hydroxynaphthoic acid (m. p. 216°), i, 475.
- Schmidmer, E. See Fischer.
- Schmidt, A., minerals of the pyroxene group, ii, 130.
- Schmidt, A. See also Majert.
- Schmidt, E., constituents of Sumatragum benzoïn, i, 481.
- salts of caffeine, i, 489.
- Schmidt, E. and W. Gölllich, codeïne, i, 675.
- Schmidt, E., G. Koenig, and W. Tietz, alkaloids of the Papaveraceæ, i, 490.
- Schmidt, F. W., can arsenic be converted quantitatively into hydrogen arsenide? ii, 186.
- Schmidt, F. W. See also Krüss.
- Schmidt, G. C., action of nitric acid on potassium dichromate, ii, 16.
- periodic law, ii, 267.
- Schmidt, J. H., estimation of quinine in cinchona barks, ii, 310.
- Schmidt, M., and H. Dreyer, separation and estimation of tin, antimony, lead, and copper in alloys, ii, 95.
- Schmidt, R., alkyltoluidinesulphonic acids, i, 584.
- Schmitt, T. F., estimation of nitrogen in nitrates, ii, 434.
- Schmitz, C., putrefaction in the intestine, ii, 137.

- Schmitz, J. See Behrend.
- Schneegans, A., and J. E. Gerock, detection of free salicylic acid in salicylaldehyde and methylsalicylic acid, ii, 503.
- Schneider, E. A., a case of solid solution, ii, 73.
- behaviour of colloids in organic solvents at the critical temperature of the solvent, ii, 259.
- ferric phosphate, ii, 573.
- the variety of gold purple soluble in water, ii, 575.
- Schneider, E. A. See also Barus, Clarke.
- Schneider, L., estimation of phosphorus in steel, &c., ii, 392.
- Schnell, H. See Auwers.
- Schöller, M. See Claus.
- Schöneis, W., estimation of aluminium in steel, bronze, &c., ii, 49.
- Schönrock, O., magnetic rotation of liquids and salt solutions, ii, 442.
- Schöpf, M., constitution of the β -hydroxynaphthoic acid (m. p. 216°), i, 476.
- xanthone derivatives and orthocresotic anhydride, i, 217.
- Scholl, R., fulminic acid and its derivatives, i, 542.
- Schoor, W. K. J., anemonin and its occurrence, i, 727.
- Schorlemmer, C., obituary notice of, TRANS., 756.
- Schramm, J., action of aluminium chloride on chlorides and bromides of aromatic radicles, i, 561.
- cinnamene hydrochloride and hydrobromide, i, 563.
- Schranzhofer, F. See Goldschmiedt.
- Schraube, C., and E. Romig, isoparatoxylosinduline, i, 339.
- Schrauf, A., metacinnabarite from Idria, ii, 418.
- Schreinmakers, F. A. H., cryohydric temperatures, ii, 512.
- double salts of lead and potassium iodides, ii, 118.
- graphical deductions from the solution isotherms of a double salt and its components, ii, 260.
- Schröder, I., dependence of the solubility of a solid on its melting point, ii, 366.
- Schröder, M., estimation of sugar in cocoa preparations, ii, 100.
- Schröder van der Kolk, J. L. C., mixed crystals of ammonium and ferric chlorides, ii, 280.
- Schroeder. See Stahl-Schroeder.
- Schröter, G., and M. Lewinski, action of thionyl chloride on alkylic carbamates, i, 696.
- Schröter, G. See also Michaelis.
- Schryver, S. B., researches on the oxidation products of turpentine oil, TRANS., 1327.
- Schüpphaus, R. C., alcohols in fusel oil, i, 63.
- Schützenberger, P., chemical constitution of peptones, i, 235.
- the volatilisation of silica, ii, 460.
- Schultess, O. See Michael.
- Schultz-Schultzenstein, C., influence of tea and coffee on artificial digestion, ii, 540.
- Schulze, E., carbohydrates in leguminous seeds, ii, 139.
- constitution of leucine, i, 195.
- nitrogenous constituents of the seedlings of *Vicia sativa*, ii, 85.
- Schulze, E., and S. Frankfurt, occurrence of betaine and choline in the sprouts of barley and wheat, i, 684.
- Schulze, E., and A. Likiernik, constitution of leucine, i, 309.
- Schulze, E. See also Planta.
- Schulze, H., cupro-iodargyrite, ii, 285.
- the thiocyanate test for iron, ii, 438.
- Schunck, E., chlorophyll, i, 41.
- Schunck, E., and L. Marchlewski, action of hydrogen peroxide on aniline, i, 197.
- — phlorose, i, 384.
- — supplementary notes on madder colouring matters, TRANS., 969.
- Schuster, A., and A. W. Crossley, electrolysis of silver nitrate in a vacuum, ii, 4.
- Schwalbe, C. See Melikoff.
- Schwalm, A. See Delisle.
- Schwechten, E. See Erdmann.
- Schweitzer, H. See Breyer.
- Scott, A., composition of water by volume, ii, 515.
- Seeberger, L. See Bamberger.
- Seegen, J., detection of small quantities of sugar in urine, ii, 349.
- formation of sugar in the liver, ii, 25.
- precipitation of proteids from blood preparatory to the estimation of sugar, ii, 398.
- Selch, E., diresorcinol, i, 352.
- Selivanoff, T., amides of hypiodous acid, i, 392.
- haloid substitution products of amides, i, 388.
- influence of negative groups in organic compounds, i, 381.
- mixed anhydrides of hypochlorous and analogous acids, i, 192, 305.

- Selivanoff, T., trichloromethane-sulphonic chloride, i, 458.
- Sell, W. J., and T. H. Easterfield, studies on citrazinic acid. Part I, *TRANS.*, 1035.
- Semenoff, V., homologues of citraconic, itaconic, and mesaconic acids, i, 194.
- Semmler, F. W., camphors containing the group $\text{CO}\cdot\text{CH}_3$, i, 107.
- citrionellaldehyde, i, 685.
- conversion of tanacetoxime into 1:3:4-cymidine, i, 78.
- derivatives of ketopentamethylene and ketoexamethylene, i, 129.
- derivatives of β -methyladipic acid, i, 396.
- essential oil of garlic (*Allium sativum*), i, 103.
- essential oil of onion (*Allium cepa*), i, 104.
- Senator, H. See Lehmann.
- Senderens, J. See Sabatier.
- Senderens, J. B., action of sulphur in presence of water on salts of polybasic acids, ii, 205.
- Sestini, F., experiments with wheat on the substitution of beryllium for magnesium, ii, 228.
- Seubert, K., and M. Elten, basic metallic sulphites, ii, 455.
- thallium sulphite, ii, 278.
- Severini, O., constitution of acetyl-1-phenylpyrazole, i, 179.
- pyrazole compounds, i, 671.
- Severini, O. See also Balbiano.
- Sewewetz, A. See Lumière.
- Seyler, C. A., supersaturation of solutions of oxygen in water, ii, 306.
- Seyler. See Hoppe-Seyler.
- Shaw, G. E., hexiodobenzene, i, 14.
- Shenstone, W. A., and C. R. Beck, note on the preparation of platinous chloride and on the interaction of chlorine and mercury, *PROC.*, 1893, 38.
- preparing phosphoric anhydride free from the lower oxides of phosphorus, *TRANS.*, 475.
- Shenstone, W. A., and M. Priest, studies on the formation of ozone from oxygen, *TRANS.*, 938.
- Shepherd, W. F. J. See Dunstan.
- Shields, J., hydrolysis in aqueous salt solutions, ii, 448.
- the relative strengths or avidities of some compounds of weak acid character, *PROC.*, 1893, 144.
- Shields, J. See Ramsay.
- Shimoyama, Y., a new unsaturated fatty acid, i, 189.
- Shimoyama, Y., and H. Ono, occurrence of thymol in the ethereal oil of *Mosula Japonica*, ii, 181.
- Shinn, O. L. See Smith.
- Shober, W. B., reaction of alcohols with paradiazobenzenesulphonic acid, i, 639.
- Shore, L. E., and M. C. Tebb, conversion of maltose into dextrose, ii, 23.
- Shutt, F. T., Babcock's method of milk analysis, ii, 251.
- Siebert, H. See Michaelis.
- Siegfeld, M. See Auwers.
- Sigmund, W., relations between fat-decomposing and glucoside-decomposing ferments, ii, 85.
- Silber, P. See Ciamician.
- Silva. See Ferreira de Silva.
- Simon, L., derivatives of pyruvic acid, i, 552.
- preparation of amylic pyruvate, i, 627.
- Simonini, A., action of iodine on the silver salts of fatty acids, i, 391.
- Sims, W. E. See Hartog.
- Singer, L. See Engler.
- Siringo, G. See Peratoner.
- Sjögren, H., adelite and svabite, new Swedish minerals, ii, 420.
- astochite, ii, 421.
- längranite, ii, 421.
- Skinner, S. See Glazebrook.
- Skraup, Z. H., conversion of cinchona alkaloids into isomerides, i, 56.
- transformations of quinine, i, 737.
- Skraup, Z. H., and F. K. v. Norwall, new isomerides of the ethioidides of the cinchona alkaloids, i, 738.
- Smetham, A., rapid saponification of oils, ii, 603.
- Smett, A. See Petterson.
- Smith, A., condensation of acetone with benzoin by means of potassium cyanide, i, 219.
- condensations with potassium cyanide, i, 219.
- Smith, E. F., action of molybdenum and tungsten on solutions of silver, gold, and other metals, ii, 170.
- electrolytic separation of platinum and palladium from iridium, ii, 97.
- Smith, E. F., and H. L. Dieck, a crystalline chromium tungstate, ii, 574.
- Smith, E. F., and V. Lenher, action of gaseous ammonia on molybdenyl chloride, ii, 529.
- Smith, E. F., and J. B. Moyer, electrolytic separations, ii, 496.
- electrolytic separation of mercury from bismuth, ii, 496.
- Smith, E. F., and V. Oberholtzer, action of gases on molybdenum and tungsten, ii, 574.

- Smith, E. F., and V. Oberholtzer, action of hydrogen haloids on molybdic acid, ii, 471.
- Smith, E. F., and J. C. Saltar, electrolytic separation of metals, ii, 495.
- Smith, E. F., and O. L. Shinn, action of gaseous ammonia on tungstic chloride, ii, 531.
- Smith, E. F., and D. L. Wallace, electrolytic separation of copper from antimony, ii, 495.
- Smith, E. F. See also Keller, Lorimer.
- Smith, F., dandruff of the horse, ii, 585.
- Smith, J. L. See Haldane.
- Smith, W. J., influence of certain sulphur compounds on metabolism, ii, 288.
- physiological action of the isomeric ethylic thiocarbamates, ii, 584.
- Smith, W. S., optical isomerides of *d*-mannoheptonic acid, *d*-mannoheptose, and perseitol, i, 147.
- Smoluchowski, T. v. See Herzig.
- Smyth, C. H., jun., the Clinton iron ore, ii, 76.
- Snow, B. W., infra-red emission spectrum of the alkalis, ii, 58.
- Söderbaum, H. G., behaviour of certain aromatic isonitrosoketones towards acetic anhydride and acetic chloride, i, 159.
- Söderbaum, H. G., and O. Widman, preparation of orthonitrobenzyl alcohol, i, 74.
- Söderbaum, H. G. See also Abenius.
- Sokoloff, N. V., estimation of theine in tea, ii, 352.
- Solaro, A., estimation of chlorine in wine, ii, 233.
- Soldaini, A., alkaloids of the seeds of *Lupinus albus*, i, 379.
- the deliquescent alkaloid from *Lupinus albus*, i, 739.
- Sorel, E., distillation of mixtures of alcohol and water, ii, 347.
- Speransky, A., electrical conductivity and freezing point of aqueous solutions of fluorine compounds, ii, 315.
- velocity of sugar inversion in presence of acetic and lactic acids, ii, 112.
- Spiegel, L., action of phenylhydrazine on cantharidin, i, 40, 278.
- gelseminine, i, 492.
- Spiegler, E., detection of albumin in urine, ii, 399.
- Spilker, A., indene and hydrindene, i, 518.
- Spindler, E., action of hydriodic acid on piperidine, i, 174.
- heptanaphthene from Caucasian naphtha, i, 151.
- Spitz, G. See Hönig.
- Spitzer, W., use of certain colouring matters for the determination of affinities, ii, 64.
- Spizzichino, E., essence of *Eucalyptus globulus*, i, 726.
- Sponholz, E., volumetric estimation of thallium, ii, 93.
- Sponholz, K., and E. Sponholz, precipitation of alumina in presence of lithium, ii, 95.
- Spring, W., possibility of the existence of certain metals in the gaseous condition at temperatures below their fusing points, ii, 168.
- Spring, W., and M. Lucion, dehydration of copper hydroxide and certain of its basic salts in the presence of water, ii, 210.
- Staats, G., influence of frictional electricity on the formation of amalgams, ii, 441.
- Stahl-Schroeder, M., reversion of soluble calcium phosphate in soil, ii, 431.
- Stange, A. See Friedlaender.
- Stapelberg, E. See Claus.
- Starling, E. H., lymph secretion, ii, 219.
- Starr, J. E. See Ludeking.
- Stavenhagen, A., compounds of arsenious and sulphuric anhydrides, ii, 459.
- Stebbins, J. H., jun., action of sulphuric acid on quinol, i, 37.
- Stelzner, A. W., francseite, a new ore from Bolivia, ii, 576.
- Stern, J., toxicological reactions: oils of pimento and cloves, ii, 397.
- Sternitzki, H. See Bamberger.
- Steude, M. See Engler.
- Stieglitz, J. See Lengfeld.
- Stift, A. See Strohm.
- Stock, A., auramines, i, 472.
- Stock, F. K., Stock's process for the estimation of nitrogen, ii, 297.
- Stockhausen, F., and L. Gattermann, aluminium chloride and nitro-compounds, i, 161.
- aromatic ketones, i, 163.
- Stockman, R., iron in chlorosis, ii, 427.
- physiological action of quinoline, isoquinoline, and their derivatives, ii, 585.
- Stoeck, C., piperidine bases of the β -series, i, 602.
- pyrazines, i, 486, 612, 675.

- Stoehr, C., pyrazines and piperazines, i, 486, 675.
- Stoebr, C., and M. Wagner, methyl-dipyridyls, i, 612.
- Stoebr, C. See also Jacobi.
- Stohmann, F., heat of combustion of organic compounds, ii, 59.
- Stohmann, F., and H. Langbein, thermochemistry of isomeric allyl and propenyl derivatives, ii, 153.
- Stohr, F. See Claus.
- Stokes, A. W., estimation of fat in milk by Babcock's method, ii, 251.
- Stokes, H. N., action of phosphorus oxychloride on aromatic silicates, i, 74.
- amidophosphoric acid, i, 315.
- benzylic silicate, i, 74.
- catalytic action of aluminium chloride on ethereal silicates, i, 62.
- Stoklasa, J., estimation of nitrogen in nitrates and in nitric acid, ii, 389.
- monomagnesium phosphate, ii, 168, 277.
- soluble phosphoric acid in superphosphate, ii, 549.
- Stolle, E., volumetric estimation of sulphuric acid in sulphates, ii, 188.
- Stone, G. C., separation of calcium and magnesium from zinc as phosphates, ii, 344.
- Stone, W. E., recent investigations on carbohydrates, i, 547.
- synthesis of sugars, i, 125.
- Stone, W. E., and W. H. Test, xylose, i, 294.
- Storbeck, O. See Michaelis.
- Storch, L., reduction of ferric salts and solution of ignited ferric oxide, ii, 468.
- Storch, L. See also Bamberger.
- Stracciati. See Bartoli.
- Strache, H., and S. Iritzer, oxidation of acid hydrazides by Fehling's solution, i, 331.
- Strache, H. See also Benedikt.
- Strassmann, F., nutritive value and elimination of alcohol, ii, 24.
- Streatfeild, F. W. See Meldola.
- Ström, T., action of sodium methoxide and ammonia on isocapro lactone, i, 690.
- Strohmer, F., and A. Stift, composition and nutritive value of the tubers of *Stachys tuberosa*, ii, 225.
- Struve, H., chemico-legal examination of suspected blood stains, ii, 312.
- Stschukareff, A., valency of the dextro-terpenes in Russian turpentine, i, 358.
- Stutzer, A., estimation of the nitrogenous constituents of commercial peptone, ii, 146.
- Stutzer, A. See also Reitmair.
- Sudborough, J. J. See Tilden.
- Süss, P., estimation of theobromine in cacao beans, ii, 198.
- Süvern, C. See Erdmann.
- Šule, O. See Pařízek.
- Sundwik, E. E., psyllostearyl alcohol, i, 125.
- Supino, R., estimation of acetone in urine, ii, 250.
- Syssoyeff, gas-volumetric analysis of nickel, ii, 393.
- Székely, S. See Liebermann.
- Szuhay, J., iodide of nitrogen, ii, 568.

T.

- Täuber, E., nitrohydroxyazo- and nitramidoazo-compounds, i, 570.
- orthodiamidodiphenyls, i, 96, 588.
- Tafel, J., oxidation of strychnine, i, 287.
- Tafel, J., and I. Vogel, action of carbamide on nitrosamines, i, 265.
- Tafel, J. See also Farchy, Rosenheim.
- Tahara, Y. See Einhorn.
- Talantzeff, Z., behenic acid, i, 548.
- Talbot, H. P., index to the literature of angelic and tiglic acids, i, 10.
- Talbot, H. P., and H. R. Moody, hydrogen peroxide solutions, ii, 369.
- Tammann, G., internal pressure in solutions, ii, 447.
- Tanatar, S., action of water on bromosuccinic acid, 192.
- heat of hydration of maleic anhydride, ii, 108.
- iodine monochloride, ii, 514.
- isomerism of fumaric and maleic acids, i, 193.
- thermochemical data for some organic acids, ii, 108.
- thermochemistry of chloracetic acid, i, 624.
- thermochemistry of α -dibromopropionic acid, ii, 358.
- thermochemistry of β -dibromopropionic acid, i, 625.
- Tanatar, S., and C. Tchelebieff, specific gravity of some isomeric acids, i, 11.
- Tanret, C., carbohydrates of the Jerusalem artichoke, i, 617.
- inulin, pseudoinulin, and inulinin, i, 385.
- Tappeiner, H. See Brandl.
- Tarible, combination of boron bromide with phosphorus tribromide, ii, 518.
- Tassinari, G., constitution of the dihydroxythiobenzenes, i, 461.

- Tate, A. N., obituary notice of, *TRANS.*, 764.
- Tate, G., the fermentation of dextrose, rhamnose, and mannitol by a lavo-lactic ferment, *TRANS.*, 1263.
- Taylor, T., obituary notice of, *TRANS.*, 765.
- Tchelebieff, C. See Tanatar.
- Tcherniac, J., preparation and properties of methyloxythiazole, i, 228.
- thiocyanacetone, i, 188.
- Tebb, M. C. See Shore.
- Teclu, N., determination of the intensity of rays, ii, 401.
- laboratory burner, ii, 368.
- Teed, F. L., detection and estimation of minute quantities of lead in the presence of copper and iron, ii, 242.
- Teichmann, H., preparation of benzidine sulphate, i, 469.
- Terreil, A., preparation of acicular basic zinc nitrate, ii, 209.
- Test, W. H. See Stone.
- Thiel, W., derivatives of campholenic acid, i, 423.
- Thiele, E., estimation of the vapour density of iodine in different atmospheres, ii, 154.
- Thiele, J., action of ammonia on hypochlorites, ii, 317.
- nitrosoguanidine, i, 389.
- Thiele, J., and J. T. Marais, tetrazole-derivatives from diazotetrazotic acid, i, 440.
- Thieme, B., salts and derivatives of phenylhydrazine, i, 154.
- Thilo, J., freezing points of sulphuric acid of different concentrations, ii, 262.
- Thörner, W., estimation of fat in milk, ii, 101.
- estimation of fibre in foods by means of the centrifugal apparatus, ii, 611.
- estimation of lactic acid in milk, ii, 250.
- Thomas, G. L. See Young.
- Thomas-Mamert, R., oxamidomaleamide and oxysuccinamide, i, 632.
- Thompson, W. H., the work of the kidney, ii, 542.
- Thomson, J. J., electrolysis of steam, ii, 515.
- Thorion, H. See Guérin.
- Thorp, F. H., action of hydroxylamine on orthobenzoylbenzoic acid, i, 466, 589.
- Thorpe, T. E., Kopp Memorial Lecture.—The life work of Herman Kopp, *TRANS.*, 775.
- the determination of the thermal expansion of liquids, *TRANS.*, 262.
- Thorpe, T. E., and L. M. Jones, the thermal expansion and specific volumes of certain paraffins and paraffin derivatives, *TRANS.*, 273.
- Threlfall, R., preparation of pure nitrogen, and attempts to condense it, ii, 270.
- Thugutt, S. J., deviations from the gaseous laws in solutions, ii, 265.
- mineral chemical studies, ii, 421.
- Tidy, C. M., obituary notice of, *TRANS.*, 766.
- Tietz, W. See Schmidt.
- Tigerstedt, A., action of alcoholic potash on the anilides, &c., of α -bromopropionic, -butyric, and -isobutyric acids, i, 51.
- simplification of the process of fractional distillation, ii, 204.
- Tilden, W. A., and M. O. Forster, the combination of hydrocarbons with picric acid and other nitro-compounds, *TRANS.*, 1388.
- Tilden, W. A., and J. H. Millar, formation and nitration of phenyldi-azoimide, *TRANS.*, 256.
- Tilden, W. A., and J. J. Sudborough, action of nitrosyl chloride and of nitric peroxide on some members of the series of olefines, *TRANS.*, 479.
- Tilden, W. A., and S. Williamson, on the hydrocarbons derived from dipentene dihydrochloride, *TRANS.*, 292.
- Tinsley, J. D., analyses of kale, turnip salad, and okra, ii, 293.
- Tissier, L., fourth primary amyl alcohol, i, 542.
- normal amyl alcohol, i, 542.
- Tissot, G. See Michael.
- Tivoli, D., phenylanilcyanamide and β -diphenylsemithiocarbazide, i, 206.
- Töhl, A., and E. Bauch, di-iodometaxylylene obtained from iodometaxylylene and sulphuric acid, i, 407.
- Töhl, A., and R. Eckel, reactions of iodomesitylene, i, 407.
- Töhl, A., and A. Müller, behaviour of halogen derivatives of pseudocumene towards sulphuric acid, i, 408.
- Toepler, M., specific volume of sulphur, ii, 8.
- Tollens, B., birotation of glucose, i, 545.
- Tollens, B. See also Flint, Moschatos, Rave, Wissell.
- Tolotchko, action of sulphuric acid on menthol, i, 422.
- Torrey, J., estimation of sulphur in slags, ii, 89.
- Trapesonjanz, C., derivatives of

- propylenediamine and pseudobutylenediamine, i, 79.
- Trapesonzzanz, C., ketoximes, i, 499.
- molecular refraction of compounds containing nitrogen (aldoximes, ketoximes), ii, 401.
- Trapesonzzanz, C. See also Bischof.
- Trapp, J., ethereal oil of the seeds of *Cicuta virosa*, i, 634.
- Traube, J., electrolytic dissociation and ionisation, ii, 4.
- molecular volumes of dissolved alkali salts and their relation to the atomic volumes of the elements, ii, 264.
- Traube, M., constitution of hydrogen peroxide and of ozone, ii, 413.
- production of hydrogen peroxide by spontaneous oxidation of zinc: combustion in oxygen, ii, 412.
- sulphuryl peroxide (holoxide), ii, 413.
- Traube, W., amide and imide of sulphuric acid, ii, 268.
- Travers, M. W., a method for the preparation of acetylene, *PROC.*, 1893, 15.
- Trench, C. C. See Hodgkinson.
- Trevor, J. E., dissociation measurements of feebly dissociated acids, ii, 62.
- Trey, H., hydrogen sulphide apparatus, ii, 268.
- Trillat, A., detection and estimation of formaldehyde, ii, 439.
- new series of colouring matters, i, 573.
- Trillat, A. See Jean.
- Trimble, H., chestnut bark tannin, i, 343.
- Tripier, J., preparation of normal caproic and hexylic acids, i, 687.
- Tristan, J. F. See Michaud.
- Troeger, J., action of hydrogen chloride and hydrogen bromide on liquid α -dichlorethyl cyanide, i, 121.
- metaldehyde and paraldehyde, i, 64.
- Tröger, J. See Otto.
- Troost, L., extraction of zirconium and thorium oxides, ii, 532.
- preparation of zirconium and thorium, ii, 473.
- Tsakoni, A. See Kablukoff.
- Tschaplowitz, F., estimation of clay and sand in soils, ii, 97.
- Tschermak, G., and E. Ludwig, the chlorite group, ii, 19.
- Tschirch, trichosanthin and thalochlore, i, 42.
- Tsuruta, K., heat of vaporisation of hydrogen chloride, ii, 445.

- Tucker, G. P. See H. Pemberton.
- Turin, V., influence of gravity on concentration of solutions, ii, 315.
- Tust, K., and L. Gattermann, action of phenol ethers on thiocarbimides, i, 154.
- Tutton, A. E., connection between the atomic weight of contained metals and the magnitude of the angles of crystals of isomorphous series. A study of the potassium, rubidium, and caesium salts of the monoclinic series of double sulphates, $R_2M(SO_4)_2 \cdot 6H_2O$, *TRANS.*, 337.

U.

- Ullmann, localisation of mercury in the animal organism, ii, 217.
- Ulsch, K., estimation of nitrogen in nitrates, ii, 42.
- Ushinsky, poisoning by hydrogen sulphide, ii, 83.
- Uspensky, N. N., action of phosphorus pentachloride on azoazoxybenzoic acids, i, 165.
- azoxybenzoic acids, i, 164.

V.

- Van Alkemade. See Van Rijn van Alkemade.
- Van Bemmelen, J. M., and E. A. Klobbie, amorphous hydrated ferric oxide, crystalline ferric hydroxide, potassium and sodium ferrites, ii, 169.
- Van der Heide, J. K., potassium astrachanite, ii, 276.
- Vander Kolk. See Schröder van der Kolk.
- Van der Plaats, J. D., the atomic weights of Stas, ii, 451.
- Van Deventer, C. M., a reaction of nitrites and its applications: gasometric estimation of nitrites by Schäffer's reaction, ii, 298, 344.
- preparation of nitric oxide, ii, 271.
- Van Deventer, C. M., and B. H. Jürgens, investigation of potable water by Schäffer's nitrite reaction, ii, 346.
- Van Dorp, W. A. See Hoogewerff.
- Van Eijk. See Cannepin.
- Van Leeuwen, J. D., influence of the sulphur contained in coal-gas on the estimation of sulphur by fusion, ii, 239.
- Van Linge, A. R. See Buisman.
- Van Pesch, F. J., manufacture and impurities of linseed cake, ii, 39.

Van Rietschoten, W. H. See Goldschmidt.

Van Rijn van Alkemade, A. C., graphical treatment of some thermodynamical problems on conditions of equilibrium in salt solutions with solid phases, ii, 363.

Van Ryn, J. J. L., carpaïne, the alkaloid of the leaves of *Carica papaya*, i, 740.

Van Wisselingh, C., cork and suberin, ii, 181.

Varet, R., action of piperidine and pyridine on haloïd salts of cadmium, i, 43.

— action of piperidine on haloïd salts of mercury, i, 174.

— combination of quinoline with silver haloïds, i, 279.

Vaubel, W., action of nascent bromine on some benzene derivatives, i, 560.

— assay of alkylanilines, ii, 605.

Vedrödi, V., analysis of tobacco, ii, 504.

Veley, V. H., conditions of the formation and decomposition of nitrous acid, ii, 413.

— the inertness of quicklime, TRANS., 821.

Vernon, H. M., reactions of ferric salts with thiocyanates, i, 122, 290.

Vèzes, M., an acid potassium platonitrite, ii, 213.

— electrometric study of potassium hydrogen triplatohexanitrite, ii, 256.

Vèzes, M. See also Joly.

Viefhaus, A., propylideneacetic acid and ethylidenepropionic acid, i, 392.

Vignon, L., absorption of mercuric chloride from dilute solutions by cotton, i, 387.

— estimation of mercury in dilute solutions of mercuric chloride, ii, 345.

— preparation and properties of fibroïn, i, 183.

— rotatory power of fibroïn, i, 60.

— thermochemistry of carbon compounds of mixed function, ii, 6.

Villavecchia, V., and G. Fabris, Baudoin's test for sesame oil, ii, 197.

Villiers, A., and F. Borg, action of zinc and magnesium on solutions of metallic salts: estimation of potassium, ii, 521.

— estimation of phosphoric acid, ii, 434.

Villiger, V. See Baeyer.

Vines, S. H., and J. R. Green, reserve proteïd of the asparagus root, ii, 431.

Violle, J. See Moissan.

Vis, G. N., constitution of morphine, i, 536.

— isomerides and congeners of "anal-

gen": ethoxy-4-benzoylamidoquinoline, i, 606.

Visser. See De Visser.

Vitali, D., absorption and physiological action of arsenic trisulphide, ii, 583.

— action of hydrogen arsenide, antimonide, and phosphide on silver nitrate, ii, 206.

— the transformations of arsenious anhydride in the organism, ii, 533.

— volumetric estimation of sulphates in potable waters, ii, 245.

— volumetric estimation of the alkaloïds and of some metals, ii, 606.

Vizern, analysis of hydrogen alkali carbonates, ii, 190.

Vogel, I. See Tafel.

Vogel, J. H., estimation of sugar and tannin in wine, ii, 52.

Vogel, O., the oxy-coal-gas flame for spectrum analysis, ii, 594.

Voit, F., behaviour of galactose in a diabetic, ii, 177.

— metabolism in *diabetes mellitus*, ii, 177.

— secretion and absorption in the small intestine, ii, 582.

Voit, K., nutritive value of asparagine, ii, 177.

Volk, C. See Krüss.

Volpi, A., a new acridine and an acridylpropionic acid, i, 350.

Volpjan, L., preparation of optically inactive cymene from oil of caraway, i, 17.

Voorhees, C. G. See Osborne.

W.

Wachter, W., orthiodobenzoic acid and its derivatives, i, 577.

Wagner, J., estimation of free acids in the presence of acid phosphates, i, 41.

Wagner, M. See Stoehr.

Wagstaffe, E. See Koenigs.

Wahl, W. H. See Greene.

Wakeman, A. J., behaviour of electrolytes in mixed solvents, ii, 257.

Walbaum, H. See Bertram.

Walden, P., affinity of organic acids, ii, 157.

— alleged optical activity of chlorofumaric acid: an active chlorosuccinic acid, i, 250.

— diffusion phenomena with precipitate membranes, ii, 203.

Walden, P. See also Bischoff.

Walfisz, B., action of hydriodic acid on carbon tetrachloride, i, 1.

Walker, C., condensation products of

- the hydrazides of ethylic acetoacetate and oxalacetate, i, 367.
- Walker, C. H. H., products of the action of nitric acid on tin, *TRANS.*, 845.
- Walker, J., action of alcohols on lactones and alkyl salts, i, 500.
- the electrolysis of sodium ortho-ethylic camphorate, *TRANS.*, 495.
- the boiling points of homologous compounds. Part I. Simple and mixed ethers, *PROC.*, 1893, 145.
- Walker, J. See also Brown.
- Walker, J. W. See Purdie.
- Walker, W. See Wallach.
- Wallace, D. L. See Smith.
- Wallach, O., bases from polei oil, i, 115.
- constituents of oil of thuja, i, 105.
- oxidation of terpene derivatives, i, 596.
- Wallach, O., and A. Binz, optical rotatory power of certain compounds of the fenchylamine and menthylamine series, i, 725.
- Wallach, O., and F. Kerkhoff, terpineol, i, 595.
- Wallach, O., and M. Kuthe, isomeric menthylamines, i, 724.
- — menthylamine, i, 105.
- Wallach, O., H. Kruse, and F. Kerkhoff, dihydrocarveol, i, 595.
- Wallach, O., and T. Rheindorff, ethereal oil of paracoto bark, i, 103.
- — terpenes from resins, i, 100.
- Wallach, O., and W. Walker, sesquiterpenes, i, 101.
- Walter, G. See Baumann.
- Walter, J., ethylic orthoformates, i, 686.
- Wander, C. A. See Graebe.
- Warrington, R., detection and estimation of lead in tartaric and citric acids, ii, 599.
- Warmington, E., phenyluracil and its analogues, i, 369.
- Warren, H. N., action of silicon on gold, silver, platinum, and mercury, ii, 474.
- artificial production of mineral sulphides, ii, 214.
- combination of oxygen and hydrogen, ii, 410.
- decomposition of tin slags by the fluoride method, ii, 305.
- manufacture of borax, ii, 460.
- preparation of silicon and aluminium chlorides, ii, 11.
- refining gold, silver, and platinum, ii, 17.
- silicon, ii, 372.
- Warwick, H. S., electrolysis of metallic formates, ii, 191.
- Watson, G., preparation of phosphoric acid, ii, 272.
- Wavelet, C., volumetric estimation of phosphates, ii, 597.
- Wdowiszewski, H., estimation of phosphorus in steel, ii, 43.
- Wedel, R., titaniferous iron ore from the Breitfirst, ii, 382.
- Wedemeyer, K., estimation of nitrates by Schmitt's method, ii, 551.
- Wedemeyer, K. See also Arnold.
- Wegscheider, R., methylation of opianic acid, i, 167.
- Wehmer, C., formation of citric acid by the fermentation of glucose, ii, 591.
- Weibull, M., estimation of fat in bread, ii, 197.
- Weidel, H., and J. Hoff, non-nitrogenous acids derived from pyridine-carboxylic acids, i, 114.
- Weidel, H., and E. Hoppe, mesitylic acid and mesitonic acid, i, 72.
- Weigle, A., spectrophotometric investigation of the salts of aromatic bases, i, 333.
- Weinberg, A., paramidoalkylortho-toluidines, i, 265.
- Weinig, M., gravimetric estimation of sulphuric acid, ii, 145.
- Weinschenk, E. See Cohen, Kunz.
- Weisberg, J., effect of boiling with water on cane-sugar and raffinose, i, 64.
- Weiske, H., influence of increased or diminished consumption of food and of the salts added to the food on digestion and resorption, ii, 132.
- Weiss, estimation of fat in milk, ii, 396, 601.
- Weiss, F., phenylic hippurate and its condensation products, i, 579.
- Weissgerber, R. See Knoevenagel.
- Wells, H. L., caesium and potassium lead haloids, ii, 322.
- caesium mercury haloids, ii, 68.
- double salts of lead tetrachloride, ii, 523.
- halogen compounds of potassium and lead, ii, 524.
- quantitative separation of caesium and the preparation of pure caesium and rubidium compounds, ii, 521.
- rubidium lead haloids, ii, 524.
- Wells, H. L., and W. R. Johnston, ammonium lead haloids, ii, 523.
- Wells, H. L., and S. L. Penfield, herderite from Hebron, Maine, ii, 76.

- Wells, H. L., and H. L. Wheeler, cesium and rubidium aurochlorides and aurobromides, ii, 68.
- double haloids of silver and the alkali metals, ii, 69.
- pentahaloids of the alkali metals, ii, 68.
- rubidium and potassium trihaloids, ii, 67.
- Wendelstadt, H., and L. Bleibtreu, the volume and amount of proteid in single red blood corpuscles, ii, 332.
- Wendt, G., methylnaphthalenes, i, 171.
- Wenger, W. H., solubility of cream of tartar in dilute alcohol, i, 308.
- Wense, W., estimation of potassium as perchlorate, ii, 46, 190.
- Wense, W. See also Naupert.
- Werner, A., constitution of inorganic compounds, ii, 379.
- hydroxylamineacetic acid and its derivatives, i, 501.
- stereoisomerism of the benzhydroxamic acids, i, 510.
- Werner, A., and A. Miolati, constitution of metalamine salts, ii, 507.
- Werner, A. See also Hantzsch.
- Werth, J., origin of the diamond, ii, 285.
- Wheeler, H. L., cesium and rubidium iodates, ii, 68.
- double halogen compounds of arsenic with cesium and rubidium: compounds of arsenic trioxide with cesium, rubidium, and potassium haloids, ii, 572.
- double halogen compounds of tellurium with potassium, rubidium, and cesium, ii, 457.
- Wheeler, H. L. See also Wells.
- Wheelwright, E. See Bamberger.
- White, J. See Orndorff.
- Whitlock, T. C. See Dunnington.
- Widman, O., formation of dihydroquinazolines, i, 438.
- new method of preparing unsymmetrical derivatives of phenylhydrazine, i, 411.
- Widman, O. See also Söderbaum.
- Wiechmann, F. G., estimation of a mixture of saccharose, dextrose, and lævulose, ii, 99.
- estimation of iron and aluminium in bone-black, ii, 498.
- Wiedeburg, O., theory of diffusion, ii, 109.
- Wiederhold, E., solubility of resin oil, mineral oils, and mixtures thereof in acetone, ii, 350.
- Wiernik, J., and S. Wiernik, analysis of crude salt and brines, ii, 391.
- Wiernik, J. See also Marchal.
- Wijs, J. J. A., electrolytic dissociation of water, ii, 364.
- Wilde, H., spectrum of thallium, ii, 525.
- Wildermann, M., cyclical equilibria, ii, 367.
- non-electrolytic dissociation in solutions, ii, 509.
- Wiley, H. W. See Ewell.
- Willgerodt, C., aromatic iodochlorides, i, 149, 256.
- chlor- and brom-iodoso- and iodoxy-derivatives of benzene, i, 696.
- iodosobenzene and iodoxybenzene, i, 149.
- iodoso- and iodoxy-compounds, i, 256, 505, 561.
- orthochloriodosobenzene and orthochloriodoxybenzene, i, 506.
- Williamson, S. See Tilden.
- Willstätter, R. See Einhorn.
- Wilm, T., gold crystals containing mercury, ii, 534.
- occurrence of gold containing palladium in the Caucasus, ii, 475.
- rhodium salts, ii, 213.
- sodium platinocyanide, i, 541.
- Wilson, A. See Macfarlane.
- Wilson, F. R. L. See Hughes.
- Wilson, J. A., estimation of water and free fatty matter in soap, ii, 198.
- Winder, G. R. See Mason.
- Winkler, C., artificial minerals obtained in chemical industries, ii, 576.
- atomic weights of nickel and cobalt, ii, 469, 574.
- elementary nature of nickel and cobalt ii, 469.
- Winogradsky, S., assimilation of atmospheric nitrogen by microbes, ii, 482.
- Winterstein, E., action of dilute alkalis and acids on cellulose, i, 127.
- inversion of some carbohydrates, i, 249.
- parent substance of wood-gum, i, 128.
- tunicin, i, 380, 497.
- vegetable amyloid, i, 127.
- Winton, A. L., modified Gunning-Kjeldahl method for use in presence of nitrates, ii, 145, 235.
- Wischin, C. See Moraht.
- Wislicenus, J., brom-additive products of angelic and tiglic acids, i, 135, 455.
- Wislicenus, J., T. Kircheisen, and E. Sattler, condensation of chloral with ketones, i, 389.
- Wislicenus, J. See also Hentschel.

- Wislicenus, W., action of benzaldehyde on ethylic oxalacetate, i, 714.
 — hydroxylamine, ii, 318.
 — synthesis of formazyl compounds by the action of diazobenzene on hydrazones, i, 156.
 Wislicenus, W., and A. Jensen, ethyl oxalacetate, i, 146.
 Wissell, L. v., and B. Tollens, furfuryl alcohol and its derivatives, i, 311.
 Wisselingsh. See Van Wisselingsh.
 Witkowski, A. See Olszewski.
 Witt, O. N., new laboratory apparatus, ii, 452.
 Witt, O. N., and E. S. Johnson, azo-derivatives of quinol, i, 571.
 Witt, O. N., and F. Mayer, azo-derivatives of catechol, i, 410.
 Witt, O. N., E. Noelting, and E. Grandmougin, indazole derivatives, i, 46.
 Witter, H. See Buchner.
 Wohl, A., action of phenylhydrazine on diazobenzene, i, 509.
 — dextrose, i, 292.
 — diazobenzene, i, 200.
 Wohl, A., and W. Marckwald, formula of glyoxaline, i, 438.
 Wolf, M. See Eckenroth.
 Wolff, C., quinazolines, i, 49.
 Wolff, E. v., and J. Eisenlohr, effect of salt on digestion, ii, 580.
 Wolff, L., constitution of dibromlevulinic acid, i, 689.
 — pyrazine, i, 373.
 — pyrazines and piperazines, i, 729.
 — synthesis of pyrazine, i, 612.
 Wolff, P. See Marckwald.
 Wolff, W., dinaphthoxanthene (methylenediphenylene oxide), i, 222.
 Woll, F. W., relative value of maize silage and field and fodder maize for milk and butter production, ii, 141.
 Woll, L. W. W., losses in ensiling and field-curing maize, ii, 141.
 Wrampelmeyer, E., amount of lecithin in butter, ii, 543.
 Wright, A. E., coagulation of blood, ii, 426.
 Wright, C. R. A., determination of specific gravity of liquids, ii, 264.
 — ternary alloys, ii, 15, 415, 522.
 Wulff, C., nucleic bases, i, 309.
 — uric acid in the organism, ii, 384.
 Wynne, W. P. See Armstrong.
 Wyrouboff, G., potassium tetrachromate and ammonium tetrachromate, ii, 528.
 — rotatory power of solutions, ii, 106.

Y.

- Yeates, W. S., and E. F. Ayres, plattnerite from Idaho, ii, 75.
 Young, J. See Hodgkinson.
 Young, R. A., mucin in bone, ii, 134.
 Young, S., Van der Waals' "corresponding states," ii, 63.
 Young, S., and G. L. Thomas, the vapour pressures, molecular volumes, and critical constants of 10 of the lower esters, TRANS., 1191.
 Young, S. W. See Orndorff.
 Young, W. G., source of error in the volumetric estimation of chlorides by Mohr's methods, ii, 433.

Z.

- Zacconi, A. See Kablukoff.
 Zahn, G. H., changes at the boundary between solutions of different concentration during the passage of an electric current, ii, 404.
 Zahorsky, B., calcium oxychloride, ii, 276.
 Zahorsky, B. See also Classen.
 Zakrzewski, J. v., specific gravity of ice, ii, 7.
 Zaloziecki, R., acids occurring in petroleum, i, 268.
 Zanetti, C. U., constitution of the methylpyrrolines, i, 226.
 — conversion of carbazole into indole, i, 717.
 — products of the reduction of orthophenylenediacetonitrile, i, 267.
 Zanetti, C. U. See also Ciamician.
 Zecchini, F., atomic refractions of the elements with respect to sodium light, ii, 253.
 — molecular weight of metaldehyde, i, 301.
 — refraction constants of phosphorus in the free state and in its compounds with elements or monovalent groups, ii, 353.
 — refraction constants of the acids of phosphorus and their sodium salts, ii, 354.
 Zehnter, R. See Nietzki.
 Zelinsky, N., electrolytic conductivity of stereoisomeric acids, ii, 152.
 Zelinsky, N., and S. Krapivin, pinacone from ethyl methyl ketone, i, 390.
 Zemiatschensky, P., palygorskite, ii, 174.
 Zenoni, M., condensation products of dimethylresorcinol and methylresorcinol with the nitrobenzaldehydes, i, 216.

- Zettel, T., cyanogen, i, 541.
- Ziegler, A., analysis of ferrochrome, ferroaluminium, ferrotungsten, ferro-silicon, and ferrotitanium, ii, 96.
- Zimmermann, R., estimation of phosphorus in steel and cast iron, ii, 44.
- Zincke, T., action of bleaching powder and of hypochlorous acid on quinones, i, 220.
- action of chlorine on phenols, i, 259, 317.
- azines and eurhodoles obtained from dihydroxydiketotetrahydronaphthalene, i, 356.
- Zincke, T., and O. Fuchs, conversion of the ketochlorides of resorcinol and orcinol into pentene-derivatives, i, 318.
- imido-derivatives of chlorinated diketopentene, i, 558.
- Zincke, T., and H. Günther, conversion of pentene-derivatives into indene-derivatives, i, 344.
- Zincke, T., and F. Küster, action of chlorine on catechol and orthamidophenol, i, 698.
- Zink, J. See Amthor.
- Zoja, L., uroerythrin and hæmatoporphyrin in urine, ii, 178.
- Zopf, W., crystalline acid from lichen: thamnolic acid, i, 727.
- Zumbro, E. A. See Bamberger.
- Zuntz, N., nutritive value of cellulose, ii, 22.
- Zuntz, N., and A. Magnus-Levy, digestibility and nutritive value of bread, ii, 24.
- Zuntz, N. See also Lehmann.
- Zuschlag, G. See Otto.
-